NATIONAL PETROLEUM NEWS

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Latest Price Cut Emphasizes Gravity of National Over-Production

By Lawrence E. Smith
N. P. N. Staff Writer

TULSA, March 5

AN almost daily increase in domestic crude oil production.

Consumption lagging far behind current production, with the peak season several months away.

Prospects for continued increase in production and probably, unless drastic action is taken, further reductions in prices for crude oil, already at the point where the pinch is being felt by operators of small wells.

The foregoing, with the additional factor that there are today more wells drilling in the United States than at any other time in history, is a brief outline of the current situation.

The consciousness seems to have grown slowly in the producing industry that the situation is critical and may, unless the trend is checked, lead to demoralization lasting over the greater part of the year. With that feeling now pretty generally held, there is more thinking along the lines of ways to check the trend than has been noticeable since the present great upswing of production and collapse of refined markets started.

THE question now is, what can be done? There is little agreement that anything is possible that will effect an immediate check. The posted price has sustained two major operations within two weeks. It is not yet down to where it will reduce development in flush fields. The latest cut was made on March 5 by the Magnolia Petroleum Co., which took the lead in this respect from the Carter Oil Co., leader in the two previous reductions. The Magnolia cut came at the wind-up of a tour of major producing districts by officials of the Standard Oil Co. of New York, who surveyed California, where the subsidiary General Petroleum Co. is a large operator, west Texas and the Panhandle and lastly, Seminole district. What they decided, evidently, was that things were not likely to improve soon.

Other officials of major companies have done considerable traveling through the Mid-Continent and Texas within the past two weeks.

Conversations among operators in the Seminole District on ways to help themselves further have been resumed lately, although the agreement of Feb. 24 runs to the same date in March. A reduction in the oil produced of about 34,000 barrels per day from the peak has been effected, not as the result of the agreement, but because of inability to handle the full production until more tankage is ready.

THE CARTER OIL CO. has the most shut-in production. Its maximum day's production was around 52,500 barrels and at the end of the week it had cut its output to around 32,000 barrels and figured it could produce 60,000 barrels if that amount could be handled. The reduction was effected principally by cutting off air lift operation.

Some other reductions in amount produced have been made by other operators. There is a growing sentiment in the direction of still further reductions in output from this district, but this has not yet assumed the dignity of formal attempts to amend the present agreement.

There is no relaxation, however, in the campaign of preparing to handle the forthcoming production. As of the close of the week around 100 tanks, 55s and 80s, were in prospect for immediate erection. Many contracts let for tank plate do not appear in this count.

Increased pipe line capacity outgoing from the field is being effected. The Oklahoma Pipe Line Co. (Standard of New Jersey) is rushing work on its 10-inch line to Council Hill station and this will be completed in about four weeks.

THIS will merely mean concentration of oil in storage outside the district, however, for the "neck of the bottle" for the Oklahoma Pipe-Standard Pipe system is this side of DeQueen, Ark., from which point southward they have large capacity to Baton Rouge. Whether increase in facilities at the point of "squeeze" will be made is yet unannounced.

Another possibility of increase in pipe line outlet from the field is the contemplated 10-inch line of the Empire Pipe Line Co., from Seminole to Cushing, upward of 60 miles. While it is not confirmed by the Empire beyond saying that it is under consideration, it is a strong probability in view of the outlook the affiliated company, the Indian Territory Illuminating Oil Co. has for greatly increased production coming from its new development in the Eight-Six country south of Seminole.

SO, on the one hand there is being exerted an effort by the operators to take care of whatever Seminole produces. On the other is a considerable sentiment that further effort should be made to spread out the production of the district at a rate which would check the general overproduction.

Crude oil is now going into storage in the Mid-Continent at a rate of between 100,000 and 125,000 barrels daily and Seminole is responsible for the major part of this. Within the field,

(Continued on page 20)

Latest Reductions in Prices of Crude Oils

March 2.—Joseph Seep Purchasing Agency reduced Somerset, Corning, Cabell and Keister crude 20 cents a barrel. Last previous change on Somerset, Cabell and Keister was a 20-cent reduction Feb. 19, and on Corning a 20-cent cut Feb. 24. Prices posted March 2 are: Somerset, $1.80; Corning, (25 cent grade), $1.85; Corning heavy (35 cent grade), $1.75; Cabell, $1.70; and Keister, $1.40. (See March 8 for second Corning reduction).

March 2.—Stoll Oil Refining Co. reduced Oil City, Ky., crude 20 cents a barrel, making new price $1.80 at the well.

March 5.—Magnolia Petroleum Co. took the lead in reducing Mid-Continent crude. This was the second reduction this year. Previous one was a cut of 15 to 39 cents on Feb. 22. Magnolia reduced prices in Oklahoma, Kansas, north and east central Texas, and Panola and Iatan, Texas, districts, 10 to 36 cents, and reduced the differential for each succeeding degree of gravity, which had been established at 4 cents Feb. 22, to 3 cents. This cut was met immediately by Prairie Oil & Gas Co. New Mid-Continent prices and previous prices are:

	Mar.5	Feb.22		Mar.5	Feb.22
*28-28.9	$1.23	$1.35	41-41.9	1.62	1.87
29-29.9	1.26	1.39	42-42.9	1.65	1.91
30-30.9	1.29	1.43	43-43.9	1.68	1.95
31-31.9	1.32	1.47	44-44.9	1.71	1.99
32-32.9	1.35	1.51	45-45.9	1.74	2.03
33-33.9	1.38	1.55	46-46.9	1.77	2.07
34-34.9	1.41	1.59	47-47.9	1.80	2.11
35-35.9	1.44	1.63	48-48.9	1.83	2.15
36-36.9	1.47	1.67	49-49.9	1.86	2.19
37-37.9	1.50	1.71	50-50.9	1.89	2.23
38-38.9	1.53	1.75	51-51.9	1.92	2.27
39-39.9	1.56	1.79	52 and above	1.95	2.31
40-40.9	1.59	1.83			

*Magnolia is paying $1.20 for oil below 28 gravity.

Among others that met the cut on March 5 were the Sinclair and Gypsy companies, and The Texas Co. The latter met it in north, central and north central Texas, and also extended the reduction into north Louisiana fields where it purchases on a gravity basis.

Humble Oil & Refining Co. met the cut on March 7 in Ranger, north Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona fields.

On March 5 Magnolia also reduced Corsicana heavy crude 15 cents, making new price $1.10 per barrel.

March 5.—Midwest Refining Co. reduced Salt Creek crude 13 to 21 cents, and reduced the differential from 4 cents to 3 cents. Its minimum grade of 29-29.9 is $1.26, with 3 cents additional for each degree of gravity, to the top grade of 37 and above at $1.50.

March 7.—Joseph Seep Purchasing Agency reduced all Pennsylvania grade crude 10 cents a barrel, and Keister, Cabell and Somerset 15 cents. Corning and Ragland were not changed. Last previous change on Pennsylvania was a 15-cent cut Feb. 23; on Keister, Cabell and Somerset, was a 20-cent cut on March 2. New prices are: Pennsylvania oil in New York and National Transit pipe lines (Bradford-Alleghany district), $3.15; Pennsylvania oil in National Transit and Southwest Pennsylvania lines, $3.05; Pennsylvania oil in Eureka pipe lines (West Virginia), $3; Pennsylvania oil in Buckeye pipe lines (Macksburg, O.), $2.85; Keister, $1.25; Cabell $1.55; and Somerset, $1.65.

March 7.—Ohio Oil Co. reduced Wooster 15 cents and Lima, Indiana, Illinois, Princeton and western Kentucky 17 cents. Last previous change was a 20-cent reduction Feb. 23. New prices are: Wooster, $1.90; Lima $1.84; Indiana, $1.61; Princeton and Illinois, $1.73; Western Kentucky, $1.46.

March 7.—Imperial Oil, Ltd., reduced Canadian Petrolia and Oil Springs crude 17 cents a barrel to $2.24 and $2.31, respectively.

March 7.—Midwest Refining Co. reduced Grass Creek light, Elk Basin, and Osage, Wyo., Cat Creek, Mont., and Hogback, N. M., crude 20 cents a barrel. Ohio Oil Co. reduced Grass Creek light, Elk Basin, Lance Creek, Big Muddy and Rock Creek, Wyo., and Artesia, N. M. crude 20 cents. New prices of both companies in fields where they purchase are: Elk Basin, Grass Creek light, Lance Creek, Osage and Cat Creek, $1.55; Big Muddy and Rock Creek, $1.42; Hogback, $2; and Artesia, $1.20. Last previous change on Rocky Mountain crude was 15 to 25-cent cut Feb. 23.

March 7.—Humble Oil & Refining Co. reduced Gulf Coastal Grade A crude 10 cents to $1.30. It also reduced Grade B 15 to 37 cents a barrel, and established a 3-cent differential for each succeeding degree of gravity in these fields, as well as in Gray and Wheeler counties of the Texas Panhandle and in the Crane-Upton-Crockett area of west Texas.

Minimum grade of less than 25 gravity in Gulf Coastal Grade B fields was cut 15 cents to $1.25 with 3 cents additional for each succeeding degree of gravity to top grade of 35 and lighter which is $1.58.

Coming Meetings

Independent Petroleum Marketers of the Middle Atlantic States, Walt Whitman Hotel, Camden, N. J., March 21.

Georgia Independent Oil Marketers Association, Lanier Hotel, Macon, Ga., March 24, 25.

American Association of Petroleum Geologists, Tulsa, Okla., Mar. 24, 25, 26.

American Oil Burner Association, Broadway Auditorium, Buffalo, N. Y., Apr. 5, 6, 7.

Petroleum Division American Chemical Society, Richmond, Va., Apr. 11, 12, 13, 14.

American Oil Men's Association, Congress Hotel, Chicago, Apr. 12, 13, 14.

National Petroleum Association, Riverside Hotel, Cambridge Springs, Pa., April 28, 29.

It reduced Carson and Hutchinson county crude in the Texas Panhandle 20 cents, making new price $1.05 flat

Gray and Wheeler county crude was reduced 10 to 26 cents a barrel. Minimum grade of 28-28.9 is 90 cents with 3 cents additional for each succeeding degree of gravity to top grade of 44 and above, which is $1.38.

Crane, Upton and Crockett county crude was reduced 1 to 11 cents. Minimum grade of below 26 gravity is unchanged at 80 cents, with 3 cents additional for each succeeding degree of gravity, to top grade of 36 and above, which is $1.13.

Last previous change on Gulf Coastal crude was 10-cent cut Aug. 30, 1926; on Panhandle (Carson-Hutchinson counties), when it was first posted at flat price of $1.25 on Oct. 25, 1926; in Gray and Wheeler counties, a cut of varying amounts Feb. 22; and in Crane, Upton and Crockett counties, a cut of 1 to 11 cents Feb. 22.

March 7.—Magnolia Petroleum Co. extended its Mid-Continent schedule into north Louisiana fields where it purchases on a gravity basis, including Haynesville, Bull Bayou and Pine Island districts. Minimum grade of below 28 gravity is $1.20, a cut of 10 cents; next grade of 28-28.9 is $1.23, with 3 cents additional for each succeeding degree of gravity, to top grade of 52 and above, which is $1.95, a cut of 36 cents on top grade.

March 7.—Stoll Oil Refining Co. reduced Oil City, Ky., crude 15 cents a barrel, making new price $1.65 a barrel at the well.

March 8.—Joseph Seep Purchasing Agency reduced Corning crude 20 cents a barrel, making new prices $1.65 for 25-cent grade, and $1.55 for 35-cent grade.

March 8.—Standard Oil Co. of Louisiana reduced all north Louisiana and Arkansas crude, excepting Smackover, Bellevue and Cotton Valley, 5 to 36 cents a barrel, and reduced the differential from 4 to 3 cents. Its minimum grade of below 28 gravity is now $1.20, with 3 cents additional for each succeeding degree of gravity to top grade of 52 and above, which is $1.95.

The reduction applies in Caddo, Homer, Haynesville, Bull Bayou, Crichton, De Soto and El Dorado fields and is to meet a similar cut posted March 5 by The Texas Co., and on March 7 by the Magnolia Petroleum Co.

Last previous change on Louisiana-Arkansas crude was a cut of from 15 to 39 cents on Feb. 24.

March 8.—Atlantic Oil Producing Co. reduced Stephens, Ark., crude 7 to 11 cents a barrel. Oil below 28 gravity was unchanged at $1.10. Next grade is 28-28.9 at $1.13, with 3 cents additional for each succeeding degree of gravity, up to top grade of 32 and above, which is $1.25. Previous differential was 4 cents. Atlantic also met the Standard's reductions in Haynesville, Homer and West El Dorado fields.

Index to This Week's News

National Petroleum News

General

Crude Price Reduced; Danger of Overproduction ..... *By Lawrence E. Smith* 17
Burton Retires, Seubert is President of S. O. Indiana 21
Lightning Protection System to Prevent Strike ..... *By Col. E. H. Wilcox* 77
Union Oil Co. Increases Sales and Profits ..... *By Roger B. Stafford* 83

Production

Crude Oil Price Changes 18
January Crude Recovery Averages Less than December 20
Panhandle May Reach Former Production Peak ..... *By A. F. Hinton* 23
Crude Oil Production Averages 38
Latest Mid-Continent Developments ..... *By A. F. Hinton* 43
Oil Found in Mexican Wildcat ..... *By Paul Wagner* 48
Cimmarron Wildcat near Well Defined Structures ..... *By Lawrence E. Smith* 55
Symposium on Effect of Gas Lift 59
Determining Submergence and Efficiency in Air Lifts ..... *By S. F. Shaw* 69
Our Industry—Facts and Personalities ..... *By Paul Wagner* 74

Refining & Natural Gasoline

Contact Filtering Patents Pooled ..... *By Paul Truesdell* 27
Refinery Executives Study Tank Car Market ..... *By J. C. Chatfield* 29
Standardized Equipment May Aid Corrosion Fight ..... *By Paul Truesdell* 32
Mid-Continent Refinery Statistics 34
Ammonia as Deterrent to Refinery Corrosion 73
Visiting Around Refineries ..... *By Paul Truesdell* 87

Marketing

Country Gallonage Less Profitable with Q. D. A. ..... *By Ward K. Halbert* 51
Gas Tax Collection Costs Oil Company $11 a $1,000 64
Ohio Marketers Form Regional Clubs 70

Departments

The Editors' Viewpoint 63
New Equipment for Plant Improvement 80
Here and There 88
New Publications 90
New Station Construction 92
On the Lazy Bench 95

Market Section

Refinery Price Tables 99-101
Tank Wagon Price Tables 103
Complete Export Markets 105
Crude Oil Prices, All Fields 106-107
Refiners' and Compounders' Supplies 107
Oil Company Finance 108-110

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Latest Price Cut Emphasizes Gravity of Situation

(Continued from Page 17)

current storage is around 30,000 barrels daily, but a large quantity moved out of the field is stored at other points.

In the foreground of the picture, of course, is Seminole. In distinct view are a number of other present concentrations of activity. These are California, Panhandle and the Crane-Upton-Pecos territory of west Texas.

The Panhandle territory is discussed fully in another article in this issue. Generally, it is not expected to do more than reach its former peak production, with some doubts as to whether it will do that. It is of more than nominal importance, however, because pipe line outlet will be available for a part of the production and stored oil, augmenting the movement by tank car which was a notable feature during last year.

Increases in output of the west Texas area referred to are certain, to an unforeseen point. While this territory lacks pipe line outlet, the Panhandle experience demonstrated what can be done by tank car.

CALIFORNIA promises at least to maintain present production and possibly to show a fair increase. At present markets and with the present high tanker rates, no general dumping of crude or refined into the Atlantic seaboard territory is probable.

The foregoing general statements are major points in the reckonings of economists who prepare for company consideration "look ahead" reports. While prediction over any long period is hazardous, certain of the broad features of the national outlook have merit. It must be borne in mind that such reasoning is based upon what is in immediate view with the background of statistical history.

Beginning with consumption, it is estimated that total requirements for crude oil and its products, including exports, beginning with an average of around 2,400,000 barrels daily in January, will mount to a peak of 2,800,000 in August and from there will decline but not to its figure of the first of the year. In December, it is estimated that consumption will be around 2,600,000 barrels daily, which will be about the same as the daily average consumption for the entire year.

THESE figures are based upon an estimated increase in total consumption of crude and all products of about 9 per cent over 1926. Normal increase should be about 6 per cent, but account is taken of the fact that in prior years of overproduction or increases in stocks, consumption of crude oil and all products has been greatly stimulated.

This is not due so much to cheaper gasoline as to increases in the use of fuel oil and to crude oil burned as industrial fuel. In 1923, for example, there was a gain in consumption over the previous year of about 23 per cent, although business conditions generally did not warrant such increase, it being attributable to the low prices prevailing.

Last year's increase in consumption of crude and all products was 7.23 per cent.

It is estimated that total requirements of crude oil for the present year will total 950,000,000 barrels, including exports. Of this amount it is believed imports will supply about 73 million barrels, leaving 877,000,000 barrels to come from domestic fields, or a daily average of about 2,400,000 barrels.

Present production is nearing the 2,500,000 barrel daily figure. It is probable that this plus imports is about 200,000 barrels daily more than consumptive requirements—that there is about that much going to storage in crude and products. The peak production is not yet here and probably will not be until the worst is over at Seminole, provided it is permitted to go ahead for what it will do. From the present status of drilling in that district, May or June appears to be a reasonable guess as to when highest production will be reached.

During the period of peak consumption, it is probable, barring the discovery of other major pools or a number of substantial pools, that consumption may exceed total current supply. Up to that time, however, the tendency will be in the direction of sizable additions to stocks.

An estimate as to stocks is that everything that was gained last year by withdrawals will be wiped out, but, again barring further large discoveries, the year should end with about the same amount of oil in storage as there was above ground at the beginning of 1926.

THE picture then, as composed of the statistical reasonings at this time and in the light of what is now in sight, is that the industry has a long hill to climb, that the summit will not be reached before July or August, but that from then on the descent should begin and the going be easier.

If calculations could be rested entirely upon present known sources of supply and the foregoing reasoning that the year will end in fairly good statistical position could be relied upon as final, in spite of the headaches in store for the industry for several months at least there would be the comforting feeling that improvement was certain at a rather definite date. Bad as the situation admittedly is at this time, the unknown is occasioning fear and it is the unknown that may render all predictions idle.

Crude Recovery Declines; Gasoline Stocks Soar

CLEVELAND, March 7

DAILY average crude oil production turned downward in January, according to the Bureau of Mines, being 2,313,000 barrels daily, a decline of 12,000 barrels from the December average. Stocks of crude oil east of California rose slightly more than 600,000 barrels. Stocks of California crude rose 850,000 barrels.

Oklahoma production, because of Seminole, increased 26,000 barrels daily average to 596,700 barrels. Production in other leading producing states, except Wyoming and Montana, fell from the December average. California production was down 3000 barrels daily average to 651,100 and Texas was down 25,600 barrels to 571,700 barrels.

The increase in stocks east of California was less than expected in view of the large production in the Seminole field. Stocks east of California on Jan. 31 were 278,685,000 barrels, compared with 278,077,000 Dec. 31 and 291,400,000 barrels Jan. 31, 1926.

Runs to stills of crude showed no indication of declining and for January amounted to 69,948,000 barrels, a daily average of 2,256,000 barrels. This represents a slight increase over December operations.

The importance of increased yield of gasoline was again in evidence in January, when, with a small increase in crude runs, gasoline production considerably surpassed that for December, the previous high figure. The January output was 27,960,000 barrels, a daily average of 901,900 barrels and an increase over January, 1926, of 20 per cent.

Domestic demand for gasoline was 17,888,000 barrels, or a daily average of 577,000 barrels. This represents a 17 per cent decline from December demand, and is only slightly above the demand of a year ago. This abnormal drop in domestic demand was perhaps the most important feature of the month.

Gasoline stocks on hand Jan. 31, 1927, amounted to 46,058,000 barrels, an increase over the previous month of a little more than 7,000,000 barrels. At no time in the past have these stocks shown such a marked increase, the chief cause of which was the decline in domestic demand. These stocks represent 67 days' supply as compared with 49 days' supply on hand the previous month and 62 days' supply on hand Jan 31, 1926.

The refinery figures of this report were compiled from schedules of 321 refineries, with an aggregate daily crude oil capacity of 2,842,000 barrels. These refineries operated during January at 79 per cent of their recorded capacity as compared with 80 per cent in December.

Dr. Burton Resigns, E. G. Seubert Succeeds Him as Indiana Standard President

CHICAGO, March 4

DR. WILLIAM M. BURTON, the first man to make the cracking of heavy oil into gasoline practical on a commercial scale, has resigned as president of the Standard Oil Co. of Indiana after 37 years of service. He remains as a director and will serve in an advisory capacity. He is 61 years old.

E. G. Seubert, formerly secretary and treasurer of the company has been elected president. Mr. Seubert has served the company nearly as long as Dr. Burton, although he is only 50 years old. At the same time two directors were elected vice presidents. They are E. J. Bullock, director of purchases and R. H. McElroy, traffic manager. F. T. Graham is now secretary and C. J. Barkdull is treasurer and assistant secretary.

These changes were announced by Colonel Robert W. Stewart on March 3. He discussed the resignation of Dr. Burton as follows:

"So beloved was Dr. Burton by the rank and file of the employes and his associates among company executives, and so necessary to the company was his brilliant intellect and comprehensive scientific knowledge, that we have long hesitated to permit him to retire; but a compromise has been effected between Dr. Burton's desires and the company's needs whereby he resigns as president but remains a director to serve largely in an advisory capacity.

"THUS he will be relieved of his administrative duties but the company will not be deprived of his knowledge and services when needed.

Dr. Burton is a chemist of international reputation. He is a native of Cleveland, O., took his bachelor's degree from Western Reserve University in 1886 and his doctor's from Johns Hopkins in 1889. He went to work for the Standard Oil Co., as a chemist the following year and five years later was general superintendent. He was made a member of the board of directors in 1911 and was a vice president between 1915 and 1918 when he became president.

The new president started his business career as a newsboy in Syracuse N. Y., where he was born on June 20, 1876. While still a boy he got a job as a machinist's helper in the Whiting, Ind. refinery where his father worked. Within a year he was working in the company's main office as a clerk. Successively cashier at Whiting, cost accountant, general bookkeeper of the manufacturing department, office manager at Neodosha, Kan., plant, chief clerk of the manufacturing department and auditor of the manufacturing department, in 1919 he became assistant secretary-treasurer of the company.

EDWARD G. SEUBERT
Elected president of Standard Oil Co. of Indiana

Shortly he rose to the office of secretary-treasurer and in 1920 he became also a vice president.

EDWARD J. BULLOCK is also a native of Cleveland. But he entered the employ of the Standard Oil Co. of Indiana 37 years ago as an office boy in Milwaukee. When in 1904 he was transferred to the Chicago office he became assistant manager of the lubricating oil sales department. Two years later he was manager of that department, and he became sales manager of the Chicago division in 1915.

In the early months of the European war when Standard Oil Co. of Indiana came into the general market for vast amounts of refined material, the petroleum products purchasing department was organized with Mr. Bullock at its head. In 1921 he became director of all purchases and in 1922 was elected to the directorate.

Vice President McElroy has not been with the Standard Oil Co. as long as Mr. Bullock, but he started higher up, having had extensive railroad experience in his younger days. He has served the company 21 of his 50 years, starting as chief rate clerk in 1906. He was promoted to assistant traffic manager in 1911, and became traffic manager in 1917.

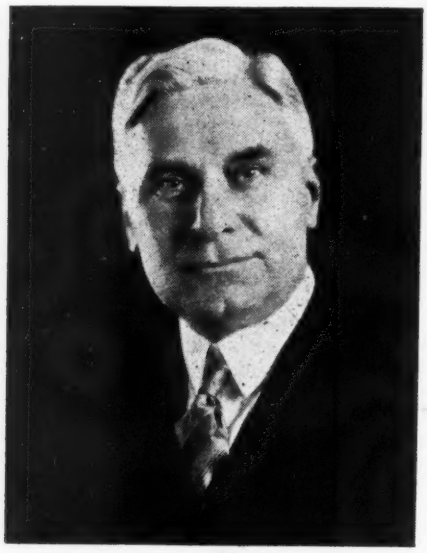
He was given a place on the board of

directors in 1922 and placed in charge of all the company's transportation, including the operation of boats.

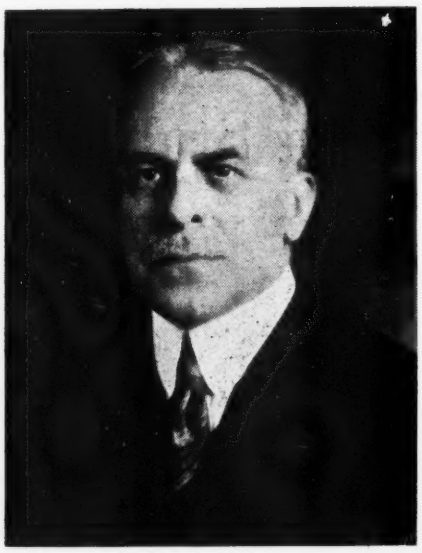
Today Mr. McElroy handles the transportation of refined petroleum products, motor fuels, lubricants and specialties by rail and boat from six refineries and five water terminals.

The company's annual movement of freight is about 25 million barrels of gasoline and six million barrels of kerosene besides lubricants, asphalt, road oils and specialties down to candles and medicinal oils. The company spends about $40,000,000 in railroad freight every year.

In filling the secretary and treasurer offices of former vice president Seubert, length of service also received its reward. F. T. Graham, the new secretary has been with the company for 20 years, and C. J. Barkdull, the new treasurer has served for 16 years. At the same time that Colonel Stewart made the announcements of the important promotions he also issued to the press the annual financial statement which showed that the Standard Oil Co. of Indiana in 1926 passed through its most prosperous and successful. year.



E. J. BULLOCK
Elected vice-president of Standard Oil Co. of Indiana



DR. WILLIAM M. BURTON
Retiring president of Standard Oil Co. of Indiana

R. H. McELROY
Elected vice-president of Standard Oil Co. of Indiana

75 Derricks to be Raised Quickly As Seal Beach is Opened

LOS ANGELES, March 5.—Daily average production of crude oil in California increased again this week, with Seal Beach coming into the lime light with a vim that probably means a continued increase for several weeks to come.

The new territory opened on the west end of Seal Beach recently, making some city lots semi-proven, is to be the scene of feverish activity for the next several weeks. This territory was not open to drilling until the Long Beach city council passed a new ordinance. Close to 100 locations have been made, and beginning next week city officials will permit erection of derricks and beginning of drilling operations.

During the next two or three weeks at least 75 derricks will be erected in the new area, practically all of them on town lots. Due to the fact that the oil sand is found around 4000 feet, it will be some 60 to 90 days before the peak can be reached at Seal Beach.

Seal Beach production reached 27,500 barrels daily this week and another increase is expected next week, with completion of new wells. Huntington Beach is declining about the rate of 3000 barrels a day a week, and likely Seal Beach will increase sufficiently to more than take care of Huntington Beach's loss.

The new Miley well near Goleta in Santa Barbara county is attracting attention, because of the size of the well and the gravity of the oil. The No. 2 well, which was completed at 1339 feet, this week was pumping 440 barrels of 42.5 gravity clean oil, with 3000 barrels in storage on the lease at noon Friday.

A pipe line is being built to the railroad a little more than a mile away and tank car shipments will start next week.

Miley's No. 3 well cemented casing at 358 feet, where the other wells had passed a likely looking sand, thought to be heavier oil. This shallow well will be tested next week. Miley's deep test, known as No. 1, which found the other upper sands, is still drilling and will go to 5000 feet, if another sand is not found at a shallower depth. The various Miley interests hold under lease close to 5000 acres in this general area. Other companies are trying to secure leases in the general area.

Stronger Seminole Pact Considered Likely

Staff Special by Wire

TULSA, March 7.—At a meeting of Seminole operators today George O. Moody, Howard N. Cole, A. Beard and Ray M. Collins were appointed to make recommendations for revision of the present restriction agreement in the Seminole field. They are to report at another meeting March 9. It is considered likely that the present agreement will be greatly strengthened.

Trade Body's Gasoline Report is Delayed

WASHINGTON, March 5.—No report by the Federal Trade Commission to the senate on gasoline, as required by the resolution of Senator Trammell of Florida, was ready for submission at the session ended March 4.

Under the rule of propriety, the Senate having asked for a report it cannot be sent to that body until it assembles again which will be next December, unless there should be an extraordinary session. There are no indications of such a thing now.

The commission hoped to have its report ready before March 4 but regretfully had to notify the senate that it could not accomplish that task assigned to it about a year ago.

Panhandle May Again Reach Former Peak As New Pools Are Developed

By A. F. Hinton
N. P. N. Staff Writer

AMARILLO, Mar. 7

IF production in the Texas Panhandle, now about 130,000 barrels a day as compared with its November peak of 167,000 barrels, is to make up the loss sustained during the winter, it must do so through development of new pools rather than through rejuvenation of the main Hutchinson county field. Several areas now under development hold promise of becoming important, and it is possible that by early summer production in the district will be around its previous high mark.

The Hutchinson county field, generally spoken of as the Borger field, undoubtedly has seen its best days and cannot be expected to stop the slow decline that now marks its course. In addition to the natural decline of wells and the exhaustion of gas in certain parts of the field, water encroachment is increasing gradually. A great many wells remain to be drilled before properties are fully developed. However, most of these are inside locations and will make only light wells. In certain parts of the field, it is probable that many inside locations never will be drilled.

It is probable that gas-lift installations will serve both to retard water and hold production higher than it would have been without recourse to this method. The field's decline, therefore, will be slow and there is no reason to believe that the Panhandle will suddenly pass out of the picture.

The water situation may be summed up with the statement that water now comprises 17.4 per cent of the field's total output, as compared with 15 per cent last December. In Hutchinson county, out of 775 producing wells, 464 are making a measurable quantity of water. In Carson county, 40 out of 78 producing wells are making from 1 per cent to 60 per cent water. In Gray county, with 104 producing wells, no water is reported.

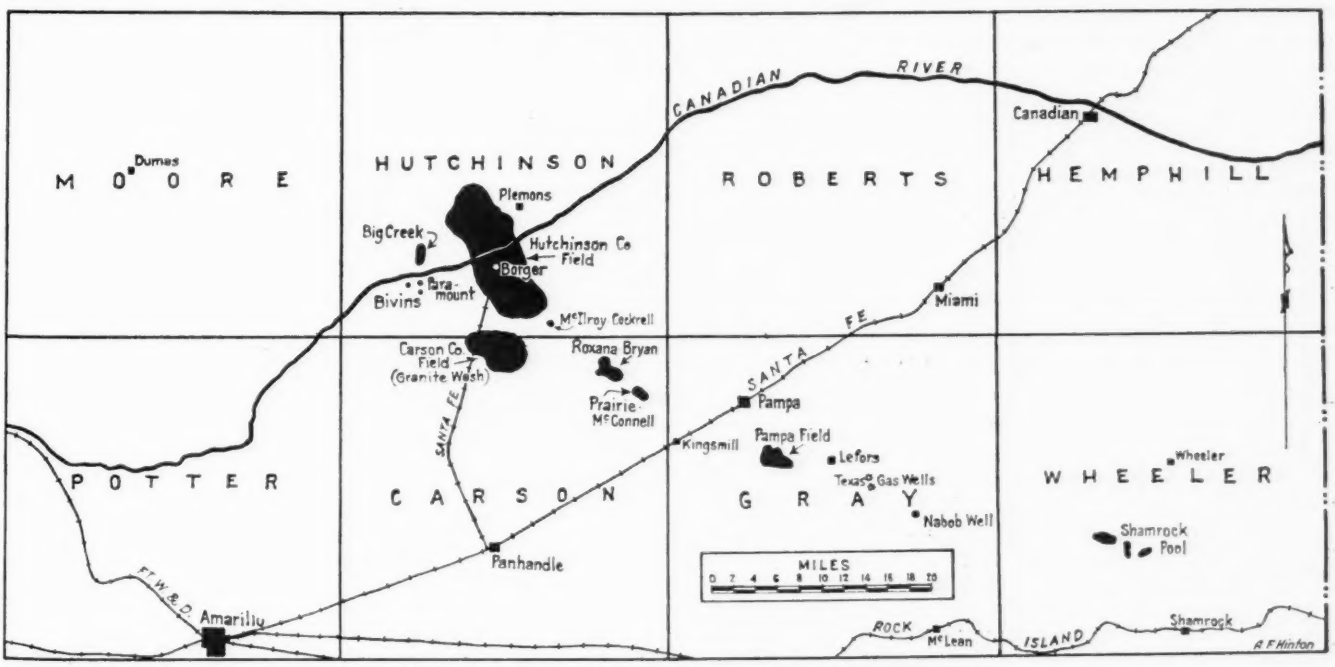
SEVERAL pools opened within the past two months look important enough to warrant the prediction that they will increase the district's production during the summer possibly to its previous peak. Extent of these new pools, of course, cannot be determined now, but it is extremely unlikely that any of them will approach the Hutchinson county field in area.

A great deal of wildcatting is going on all over the Panhandle, and pools opened as result of this drilling naturally cannot be included in any look ahead as to production prospects.

One of the most interesting wildcat developments is that on Big Creek, just north of the Canadian river and about eight miles west of the main Hutchinson county field. The discovery well in this field was drilled in by the Prairie Oil & Gas Co. on its Cal Merchant lease in section 37, H. & T. C. R. R. Block 47. This well had initial production of 1000 barrels daily several months ago, and is still making 651 barrels. Following this discovery, development work was held back until the Prairie had laid a line from its Borger pump station to the well.

Prairie is drilling No. 3 to the north of the discovery and No. 2, to the south, all along the west line of section 37. Offsetting these wells to the west, Marland has completed its No. 3 and No. 2 Merchant, while its No. 1, which is a direct west offset to the Prairie discovery, has not yet been completed. One of the Marland wells is making about 1000 barrels and the other 450 barrels, and neither has been shot. All these wells are producing from the same lime formation as that found in the main field.

ABOUT a mile and a half north of Prairie-Merchant well, Anderson & Prichard are trying to make a well out of their No. 1 Yake, in the SWc NE of section 1, H. & G. N. R. R., Block J. This well has an oil showing at 2813 to 2815 feet. It also is making some water, and completion is being delayed by efforts to shut off or exhaust this water. This well is noteworthy because it had its first water at a point 150 feet above sea level, the highest it has

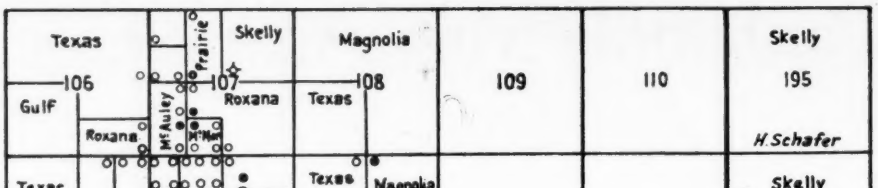


The Panhandle district of Texas with locations of developing areas

been found in the Panhandle, it is believed.

South of the Canadian river and about two miles from the Prairie-Merchant discovery, there are several interesting wells, which, if successfully completed, would indicate the presence of a pool of considerable size. The Paramount Oil Co. No. 1 Sanford, in section 82, H. & T. C. R. R., Block 46, is now about six weeks old and is making 425 barrels a day. It made as high as 800 barrels, but has been having trouble with water. A number of wells have started up in the vicinity since this well came in. Phillips, Paramount, McMan, Marland, Gulf have operations under way in section 82, while three wells are going down in section 83 to the west.

In section 84, a mile west and a little south of the Paramount well, Phillips-Pulaski No. 1 Bivins apparently is good for about 150 barrels a day, and is another outpost of production in the vicinity.



Roxana-Bryan and Prairie-McConnell Pools, Carson Co., Texas

THIS well has had trouble with gas breaking in and at last reports was pulling the five-inch casing to re-seat in an effort to shut off the gas. In section 86, a mile west of the Phillips-Bivins, Roxana Petroleum Corp. is drilling its No. 1 Bivins. This well has made several flows. As it is the farthest west production along the river, this well is looked upon as of great importance, and will mean the starting up of a lot of wells if it is successfully completed. It had more than 100 million cubic feet of gas which has now been shut off, and was shot with 240 quarts in oil pay from 2990 to 3050 feet. At last reports, the hole had bridged following the shot, and was being cleaned out.

A line drawn from the Prairie-Merchant south to the Paramount well and then westward through the Phillips-Bivins to the Roxana-Bivins, forms a rough triangle about two miles north and south and the same east and west, so that wells already in or showing indicate an area of three or four square miles that should produce oil and undoubtedly will be thoroughly tested.

Production pushing this far west gets close to the vast holdings of the Amarillo Oil Co. (Prairie-Producers & Refiners subsidiary) whose properties heretofore have been almost altogether in the gas area. This company has started two wells in the general vicinity of the Merchant pool. Its No. 1 Ingerton is a location in section 41, block 47, a mile and a half west of the Prairie-Merchant wells, and its No. 1 Bivins is drilling at 670 feet in section 88, block 46, about a mile west of the Roxana-Bivins.

OTHER pools which may prove important in the area's future development are scattered along the north flank of the Amarillo Fold southeasterly from the Borger field a distance of 80 miles from Borger to the Shamrock field in Wheeler county. These pools are shown on a map accompanying this article.

In the area including the Carson county granite-wash field and the Hutchinson county lime production, the structure flattens out so the formations dip to the north at the rate of about 20 feet per mile, and production is found over a broad area lying roughly between the 800 and 1200-foot contours on top of the lime.

From the present edge of production southeasterly, however, the structure dips much more sharply, so that, instead of an incline of 200 feet in 10 miles, as in the main field, it drops off that much in a mile and a half.

These fields along the "trend," the direction of which shows up graphically on the sketch map, will therefore be somewhat on the shoestring order, in that they will be long and narrow and of comparatively small area.

A recent well about two miles southeast of present production in the Hutchinson county field has served to awaken interest in that section after a great deal of drilling had failed to find important production. This well is the McIlroy No. 1 Cockrell, in the NE NE of section 4, block B-3, D. S. & E., Hutchinson county. This well, which is producing from lime, made 700 barrels after a shot when drilled in recently, and is still making 385 barrels a day. As a result of this well, 19 locations have been made in the vicinity and 11 rigs already are up. This pool looks as though it might cover two sections at least, and should have some additional completions late in April.

THE next important source of new production along the "trend" is the Roxana-Bryan field in northeast Carson county. This field has 13 producing wells making 3308 barrels daily and its production is scattered over three sections, with no inside locations drilled as yet. There are about 40 wells drilling in sections 106, 107, 91, 92, 93, and 86, I. & G. N. R. R., block 4.

About three and a half miles southeast of production in the Roxana-

Tank Car Shipments of Crude from Panhandle District January 1927

Company	Shipped To	No. Cars
Atlantic	Crown Central Pet., Houston	124
Bartex	Atlantic, Houston,	1,920
	New Orleans Refg. Co., N. O.	679
Bell	Grayburg, San Antonio, and Swiftsure Pet. Co., Texas City	(Unavailable)
Empire	Swiftsure Pet. Co., Texas City	549
Derby Oil	Derby, Wichita, Kans.	158
	TP C & O Co., Wynnewood, Okla.	137
Gulf	Swiftsure Pet. Co., Texas City.	739
Humble	Humble Ref., Baytown, Tex.	1,842
Marland	Kansas City Gas Co., KCMo.	60
	Marland, Onca City.	228
	Marland, Texas City.	2,072
	Peoples Gas Byproducts Co., Chicago	150
Midwest	Standard, Neodesha, Kans.	161
	Amarillo Ref. Co., Wichita Falls (Miller)	187
Pantex PL	Pantex Oil Co., Crown Central	309
	TP C & O Co., Wynnewood, Okla.	69
	Amarillo Ref. Co., Wichita Falls (Miller)	20
Plains	(Unavailable)	319
Roxana	Wood River, Ill.	270
Prairie	Pure Oil Co., Mexia	584
	Unavailable Neodesha, Kans.	171
Sinclair	Sinclair Refg. Co., Houston	481
Skelly	Skelly, El Dorado, Kans.	478
White Eagle	White Eagle, Fort Worth	325
	Augusta, Kans.	67
	El Dorado, Kans.	24
	Houston	23
Total Cars		12,146

Panhandle Drilling Operations March 1, 1927

County	Location	Derricks	Rigging	Drilling	Shut Down	Cementing	Total
Armstrong					1		1
Briscoe				1			1
Carson	12	7	3	50	8	2	82
Castro		1		1	1		3
Childress					1		1
Collingsworth				2	2		4
Dallam				1	2		3
Deaf Smith		1			1		2
Donley				1			1
Gray	8	4	2	27	14	2	57
Hall					2		2
Hansford				1	1		2
Hartley				6	3		9
Hemphill				1	1		2
Hutchinson	63	48	14	125	27	12	289
Lipscomb				1	3		4
Moore				8	3		11
Ochiltree				1	3		4
Oldham				1			1
Parmer				1			1
Potter		1			3		4
Randall				2			2
Roberts				8			8
Sherman	2			1	1		4
Wheeler	2	10	2	13	8		35
Totals	88	72	21	252	85	16	534

Bryan field, Prairie Oil & Gas Co. recently drilled in its No. 1 J. M. McConnell, in the NWc NE SE of section 67, block 4. This well is making 821 barrels, and in connection with the 200-barrel well of J. T. Parks in section 198, block 3, a mile farther southeast, looks like the opener of an important field.

It is probable that the Roxana-Bryan and Prairie-McConnell developments are in reality part of one pool which from present indications would be about six miles long in a northwest-southeast direction. However, Skelly Oil Co., which has a lease on the 13,000-acre Schafer ranch, owns a number of sections intervening between the two pools. Inasmuch as drilling on these properties will not be competitive on account of having no offsets, the area must be considered as two pools as far as development is concerned.

As shown on accompanying sketch map Skelly has five adjoining sections in a solid block between the two pools and directly in line with production, with sections 86 and 87, block 4, most directly in the trend. There are 17 wells drilling in the Prairie-McConnell field, most of which have just started up in the past 10 days.

Next in line to the Roxana and Prairie pools is the Pampa field in central Gray county, which was discovered early in Panhandle development by the H. F. Wilcox Oil & Gas Co., still the field's largest producer. This field has 103 wells producing 7,700 barrels daily. It is about drilled up, and little can be expected from it in the way of increased production during the summer.

ABOUT 14 miles southeast of the Pampa field, the Nabob Oil & Gas Co. has an interesting test in its No. 1 Morse, in the SE of section 68, H. & G. N. R. R., block 25. This well, which is a rank wildcat, is estimated good for 200 barrels daily in pay from 2680 to 2711 feet. It has been producing on the swab, but has not flowed on account of lack of gas. Several wildcat tests are drilling in the vicinity, but it is not looked upon now as an important discovery.

From the Nabob well it is 20 miles southeast along the trend to the farthest east production in the Texas Panhandle, this being the Shamrock field of south-central Wheeler county. Production in this field, which is scattered over seven sections, amounts to only 1,530 barrels from 17 wells. Production is spotted, with dry holes offsetting good wells. It is believed by some that the main field in Wheeler county is yet to be discovered, and one of the 11 wildcat tests now drilling in the county may find something important. From its present status, Wheeler county does not hold much promise for increased production.

THERE are 534 operations under way in the 25 counties making up the Panhandle district. Of these, 252 are actually drilling while 101 are shut down for various reasons. This total figure is about 250 less than the peak of drilling last summer, when about 800 were in progress. The past winter has been an unusually open one and conditions have been so favorable that most wells have kept on drilling through the cold weather. The decline in operations, while partly due to cessation of work during the winter, is also largely accounted for by completion of development on many producing properties in the main field.

Missouri Proposes Bond Issue

KANSAS CITY, March 7.—A new state bond issue of $120,000,000 is being proposed in the Missouri state legislature for the construction of good roads, the bonds to be retired by the gasoline tax and automobile license fees. The bond issue will have to be approved by popular vote.

Correction

Head on story of decision by U. S. Supreme Court on Kentucky production tax on page 64, March 2 issue, should have read, "Kentucky Production Tax Held Constitutional," instead of "unconstitutional."

Panhandle and Oklahoma on Survey's Program

NORMAN, OKLA., Mar. 7.—Geological formations in the Arbuckle Mountains and the Ardmore basin of Oklahoma will be studied at the next conference of the Oklahoma Geological Survey, which will be held on Mar. 28 and 29, following the annual meeting of the American Association of Petroleum Geologists at Tulsa. Included in the points of interest which will be visited are, the porphyry monadnock known as East Timbered Hills, Turner Falls, Prices Falls, the asphalt mines, White Mound, Burning Mountain, Caddo anticline and Criner Hills, according to Charles N. Gould, director of the survey.

The ninth field conference, which was held on Feb. 21, 22 and 23, was attended by 45 geologists. Typical exposures of the Woodford, Sycamore, Caney, Viola, Sylvan and Chimney Hill formations were studied and fossils were collected from the Harragan at Cedar Bluff. The party started out of Ada, Okla. under the direction of John Fitts. Formations around Atoka, Coalgate, Centrahoma, Tupelo and Stratford were included in the visit.

A banquet was given the visiting geologists by the Kiwanis and Lions Clubs of Ada. Prof. Lindecheid, president of the east central state Teachers College, was toast master.

A field conference is being planned in the Panhandle of Oklahoma, to be held probably in May. Conditions near the Ramsey well in Cimarron county, together with the volcanic rock on Black Mesa and the various cretaceous exposures in that area will be studied.

More than 200 geologists have attended these field conferences in Oklahoma and adjacent states during the past two years they have been held, Mr. Gould states.

N. Texas Nat. Gasoline Plant Operators Meet

Staff Special

TULSA, March 7.—Operators of natural gasoline plants in the north Texas fields will hold two meetings during the last week in March to discuss problems encountered in their every-day work. The meetings are sponsored by the association of Natural Gasoline Manufacturers.

The first meeting will be held at Ranger on March 22. The second will be at Wichita Falls on March 25. Dr. E. R. Lederer, head of the manufacturing department of the Texas and Pacific Coal & Oil Co. will act as chairman of both meetings.

The Ranger meeting will be held at the Liberty theater. The first session will start at 1:30 p.m. and the second at 7:30. A complete program will be announced next week by A. V. Bourque, secretary of the association.

Latest Change in Q. D. A. Schedule Increases Two Refunds

CHICAGO, March 5

EFFECTIVE March 3, Standard Oil Co. of Indiana revised its gasoline price schedule as affected by the Quantity Discount Agreement for the second time this year. Both changes have been in the direction of simplicity and both have allowed bigger discounts. The new schedule went into effect in Wisconsin March 4, the delay being due to a complication under the state's marketing law.

Today, there is only one discount to the filling station customer. It is 2 cents per gallon if he uses 200 gallons per month or more. If he uses less there is no discount. Until last Thursday, March 3, a 200-gallon per month consumer got only 1 cent and it took 600 gallons per month consumption to earn the 2-cent refund. But it is all 2 cents now.

As it stands today, there are three brackets in the schedule of discounts from the tank wagon price under Q. D. A. (a). If a customer buys 6,000 gallons a month or more from tank wagon (either for consumption or resale) he gets a refund of 1½ cents per gallon; (b) if he buys 10,000 gallons a month or more he gets a refund of 2 cents per gallon, and (c) if he buys 15,000 gallons a month or more he gets a refund of 3 cents per gallon.

Prior to Jan. 19, there were three other brackets. A buyer of 3,000 gallons a month got 1 cent per gallon back; buyers of 2,000 gallons got ¾ cent, and buyers of 750 gallons got ½ cent. Instead of those three tedious discounts, Standard inaugurated a 1-cent discount to persons buying 50 gallons at once from tank wagon. It became effective Jan. 19 and is still in effect.

THERE is a popular misconception that the 1-cent discount to buyers of 50-gallon dumps is superimposed on the entire tank wagon Q. D. A. schedule. It is not. The dump discount is included in the wholesale Q. D. A. For example, if a garageman buys 10,000 gallons a month he certainly takes more than 50 gallons at once. He is entitled to a refund of 2 cents altogether. If he wants to take the 1-cent discount at the time of delivery he may do so, but he will have only 1 cent per gallon coming at the end of the month. The 50-gallon dump discount applies to kerosene, (since March 1) but the Q. D. A. generally does not apply to kerosene.

The revisions which took effect on March 3, were only two. They were the inauguration of a 3-cent refund to buyers of 15,000 gallons a month or more and the elimination of the 1-cent discount to service station customers, leaving only the 2-cent retail discount. There was one exception to each rule. (1) The 3-cent tank wagon refund does not apply in the city of Chicago, and (2) the uniform filling station refund did not take effect immediately in Wisconsin.

Filling station operators and garage men in Chicago think the exception in their case works a grave hardship upon them. If the schedule is rigidly observed, such dealers will have to give all their Q. D. A. retail customers a rebate of 2 cents a gallon and their discount from the jobber will not be more than 2 cents and only 1½ cents in some cases. The smaller dealers who attempt to meet the Standard Oil Co's. retail price to big customers will have to absorb ½ cent or more of the Q. D. A., which will have to come out of their regular 2-cent differential.

The mathematical aspects of the Q. D. A. are the same today that they were when the schedule was first arranged by the Standard Oil Co. of Indiana. If a certain dealer signs a 10,000 or a 15,000 gallon contract, and fails to sell that much during any given month, he may still get the maximum refund under the contract if his year's total is 12 times the volume stipulated in the monthly contract.

New Q. D. A. Schedule

New Standard Oil Co. of Indiana Q. D. A. schedule for gasoline tank wagon deliveries which went into effect March 3 in all but Wisconsin of its territory and March 4 in Wisconsin, follows:

50 gallons or over on delivery, 1c per gallon.

6,000 gallons or over per month 1½c per gallon.

10,000 gallons or over per month, 2c per gallon.

15,000 gallons or over per month, 3c per gallon.

The new schedule on service station deliveries is:

200 gallons or more per month, 2c per gallon.

2400 gallons or more per year, 2c per gallon.

On March 1 the Standard also posted a 1 cent discount per gallon on kerosene in 50 gallon dumps, effective throughout the territory.

Correction

CLEVELAND, March 8.—On page 111 of this issue it is published that the Atlantic Refining Co. intends to meet all competition of Mid-Continent gasoline in eastern territory even at prices that net the Atlantic only 9¾ cents at its Franklin, Pa., refinery. This is a misstatement due to a misunderstanding in the trade when Atlantic gasoline was offered yesterday through several brokers. Today it became known the Atlantic had set 10¼ cents minimum to the trade and 10 cents for resale and was competing in that part of eastern territory where freight and price differentials permitted.

Ohio Kerosene Cut 1 Cent

CLEVELAND, March 8.—Standard Oil Co. of Ohio March 5 reduced kerosene prices 1 cent in Ohio, making new tank wagon price 16 cents. Last previous change was 1 cent advance Sept. 3, 1926.

Navy Lacks Authority to Drill Elk Hills

WASHINGTON, March 7.—The Navy department has no authority under the act of June 4, 1920, to proceed with the development of the Elk Hills (California) petroleum reserve. This fact was revealed following the annulment of the lease granted the Pan American Petroleum Co. of California by Albert B. Fall, secretary of the Interior in the Harding cabinet.

It will be the policy of the navy department, Secretary Wilbur announced after the U. S. Supreme Court annulled the Pan American or Doheny lease last week, to keep the navy's oil in the ground. But as the navy's lands cover only 31,000 of the 37,000 acres in the Elk Hills district there is danger of drainage by the other operators, the Standard Oil Co. of California and the Belridge Oil Co.

Negotiations are under way with those two companies, it was said, to have them stop development on property adjoining to the government's or to have them pay the government compensating royalty in case the 21 oil wells and two gas wells drilled in the naval reserve are shut down and they continue their operations.

It is the hope of the government to "keep the oil in the ground" but neither the Standard nor the Belridge is obliged to grant the government's request to cease operations. Negotiations with these companies is in the hands of Admiral H. H. Rousseau.

The receivers for the naval reserve now have approximately $9,900,000 which will be turned into the U. S. treasury. It is hoped by the navy department that in case other negotiations fail the 6000 acres not held by the government may be bought, and drainage thus stopped. The government's production from the 21 wells is now about 3800 barrels a day.

OKLAHOMA CITY, OKLA.—A new Graham Bros. tank truck has been added to the fleet of Summit Oil & Refining Co. here.

Standard (Cal.) and General Pet. Corp. Pool Contact Filtering Patents

By Paul Truesdell
N. P. N. Staff Writer

CLEVELAND, March 7 - PATENTS covering various phases of contact filtering of lubricating oils, which were owned by the Standard Oil Co. of California, the General Petroleum Corp. and James W. Weir, superintendent of the Fillmore refinery of the California Petroleum Corp., have been brought together under the ownership of the Filtration Processes Co.

This organization was formed by the Standard of California and the General to serve as a holding company for the patents which are believed to control almost if not all of the possible applications of fine clay filtering, decolorizing or neutralizing lubricating oils. The patents owned by Mr. Weir had been bought by the Standard prior to the organization of the holding company.

Inasmuch as the General Petroleum Corp. is controlled by the Standard Oil Co. of New York, this puts control of the patents on contact filtering into the hands of two Standard companies.

Max B. Miller Co. has been appointed the Filtration Processes company's exclusive agents throughout the United States, according to Max Miller, having the right to license anyone under each or all of the patents owned by the Filtration Processes company or under any improvements thereof that might come into the possession of the holding company, the members of the holding company or the Miller company in the future, relating to any process of contact filtration.

Max Miller was the man who developed the use of the centrifugal process in refineries for dewaxing oil. As first introduced, it was to replace the cold settling process of dewaxing bright stocks. Later it has been developed to dewax the socalled long residuum, thereby reducing considerably the amount of distillation carried on the manufacture of lubricating oil.

WORK on the development of contact filtering began in California in 1916. It began with the beginning of the manufacture of lubricating oils from California crudes. The refiners who undertook this branch of refining had been trained in the eastern refineries where they had used percolating fullers earth filters. Shipping of fullers earth across the continent was too expensive and the aluminum silicates, montmorillonite, bentonite and so on found in California were too fine to be used in percolating filters. So ways were sought to use the fine clay available for the purpose by mixing the fine clay with the oil, circulating the mixture at high temperature and removing the clay by means of a press.

The men most active in the development work include Marvin L. Chappell and Merle M. Moore of the Standard Oil Co. of California; James W. Weir, who was formerly with the Standard, John C. Black, formerly with the Standard and now with the Pan American Petroleum Corp., and Paul W. Prutzmann and C. J. von Bibra of the General Petroleum Corp. The work of the Standard men was carried on at the Standard's El Segundo refinery of which John C. Black was then manager.

THE patents owned by the Filtration Processes Co. include:

No. 1,397,113, issued to Prutzmann and assigned to the General Petroleum Corp., covering the manufacture of a filtering material from montmorillonite. (This patent was in interference in the patent office with the Standard of California and the latter won the interference suit.) Applied for Jan. 17, 1921. Issued Nov. 15, 1921.

No. 1,404,374, issued to Chappell and Moore, assigned to the Standard. Applied for Feb. 18, 1920, issued Jan. 24, 1922.

No. 1,404,375, applied for and issued to Chappell and Moore on the same dates as 1,404,374.

No. 1,471,201, issued to von Bibra and Prutzmann, assigned to the General. Applied for Sept. 2, 1922, issued Oct. 16, 1923.

No. 1,562,001, issued to Prutzmann and von Bibra, assigned to General, Nov. 17, 1925, applied for Sept. 2, 1922.

No. 1,492,184, issued to James W. Weir and John C. Black, April 29, 1924, applied for Sept. 8, 1922.

No. 1,564,501, issued to Weir, half assigned to Black, Dec. 8, 1925, applied for March 21, 1922.

No. 1,572,465, issued to Weir and Black Feb. 9, 1926, applied for Oct. 19, 1922.

No. 1,505,453, filed Jan. 10, 1923, issued Aug. 19, 1924, to James W. Weir.

No. 1,509,326, filed June 11, 1924, issued Sept. 23, 1924 to James W. Weir.

No. 1,525,016, filed Oct. 10, 1922, issued Feb. 3, 1925, to James W. Weir.

No. 1,581,369, filed May 14, 1925, issued April 20, 1926 to James W. Weir.

No. 1,581,370, filed Nov. 9, 1925, issued April 20, 1926 to James W. Weir.

No. 1,592,058, filed May 14, 1925, issued July 13, 1926, to James W. Weir.

No. 1,603,174, filed May 14, 1925, issued Oct. 12, 1926, to James W. Weir.

The Standard of California bought the Weir and Black patents in October, 1926.

The salient claims set out in these various patents were pointed out in stories which were published in the June 9 and June 16 issues of National Petroleum News, pages 39 and 53, respectively.

EXTENSION of the use of contact filtering has for the most part gone hand-in-hand with the development of centrifugal dewaxing of bright stocks and long residuums. It was because he believed that contact filtering was particularly advantageous in connection with centrifugal dewaxing that Max Miller began negotiating with the Standard and the General Petroleum Corp. in 1923 for rights to license contact filtering under patents owned by these companies, to refiners using the centrifugal process.

Mr. Miller says that one of the most serious problems met with in early installations of the centrifuge machines was that the filter houses at the plants where they were installed could not keep up with them. In the effort to keep up, oil was often sent to the machines imperfectly filtered.

Mr. Miller succeeded in reaching an arrangement with the Standard and General whereby he could license the use of the contact filtering process which, because of its more rapid operation, made it possible for a comparatively small filtering plant to keep up with the centrifuge machines.

The Miller company at the same time obtained the selling agency for certain adsorptive earths which are mined in California and in Nevada.

Although the contact filtering process had been well worked out by the big companies in California to meet their needs, this did not mean that it was a finished process.

ADAPTING contact filtering to a refinery's needs is an individual problem in almost every case. Sometimes natural untreated clay is the best method. Sometimes dry treated clay is used, sometimes, a paste of clay, acid and water or clay and oil is used.

Most men best acquainted with the process agree that there is still much work to be done in individual cases, such as finding suitable clays near at hand for refiners where freight charges on the clay are a heavy item. Today there are several plants successfully operating contact filtering on Pennsylvania, Gulf Coast, Mid-Continent and Ohio oils.

using individual variations of the process.

One of the latest developments of contact filtering is in use in a Pennsylvania refinery. This plant makes a dewaxed long residuum from Pennsylvania crude. The clay is put upon the oil during distillation and this method may find more extended use in the future. Mr. Miller says, in addition to its use in the distillation of Pennsylvania crude, this method may be used for the following purposes:

1—In connection with the filtration of overhead stocks in which the oil is being reduced to final specification after initial distillation.

2—For filtration of oils that have been diluted prior to acid treatment in which the clay would be put on the oil at the time that the diluent is being stilled off.

3—In connection with the filtration of residuums made from mixed base crudes wherein the crude itself has been acid treated, neutralized and the clay introduced during the process of the reduction of the treated crude.

Louisiana Oil Co.'s Ohio Salesmen Convene

CLEVELAND, March 5.—A sales meeting and banquet was the setting for discussions of marketing and other problems pertinent to an oil company's operation when the Ohio division of the Louisiana Oil Refining Corp., Shreveport, La., held its first annual meeting at its Ohio headquarters in Cincinnati on Feb. 25.

One of the principal speakers was A. L. Edsell, assistant manager of agency sales at Shreveport, who gave a brief resume of the history of the corporation, covering briefly its operation in the producing, refining, transporting and marketing of petroleum products.

A. D. Tillman, manager of the Ohio division and chairman of the business session of the meeting, reviewed the work of the Ohio division and outlined the future program.

Other speakers were: K. Dyson, assistant manager of the Ohio division; L. F. Clark, credit manager; S. E. Towery, chief engineer; S. D. Jackson, general purchasing agent with headquarters at Shreveport; and L. E. Alfred, manager of the service department and purchasing agent for the Ohio division.

A banquet at the Cincinnati club with Herman A. Bayless toast-master brought the meeting to a close.

NORMAN, OKLA.—During the latter part of February students in petroleum engineering of the University of Oklahoma attended the lectures and instruction on first aid conducted by the U. S. Bureau of Mines engineers at Oklahoma City, according to H. C. George, director of the school of petroleum engineering at Norman. The bureau's rescue car was used in demonstration.

GEORGE A. ELLIS

Whose death occurred on Feb. 15, was treasurer and a director of the Valvoline Oil Co., New York, for 26 years and had been with that company and its predecessor, Leonard & Ellis, since 1869. He became treasurer and director in 1901 when the Valvoline company was incorporated by Leonard & Ellis, according to W. Dixon Ellis, president of the Valvoline

Proposes License Tags For Tank Trucks

Staff Special

KANSAS CITY, March 7.—The state oil inspection department of Missouri is sponsoring a bill in the legislature seeking to cut down bootlegging of gasoline into border counties from adjoining states. The bill provides that every tankwagon must bear a license tag.

Jobbers in other states wishing to sell to Missouri must obtain license tags. Any truck found without a tag may be confiscated under the proposed law.

The bill would allow jobbers to pay their gasoline tax on receipt of gasoline rather than when sold and permit deductions up to 3 per cent for handling and evaporation losses.

Atlantic States Jobbers To Meet March 21

PHILADELPHIA, March 8.—A meeting of the Independent Petroleum Marketers of the Middle Atlantic States which was scheduled to be held on March 14 at the Berkshire Hotel, Reading, Pa., has been postponed to March 21. It will be held at the Walt Whitman Hotel at Camden, N. J., according to E. Walter Hudson, secretary.

Following the directors' meeting, a dinner and open meeting will be held to which all oil dealers of Philadelphia and Camden are invited, regardless of membership in the association.

Earlsboro Gets Third Wilcox Sand Well

TULSA, March 7.—The third Wilcox sand well in Earlsboro field, Seminole district, is Gypsy-Amerada-Westland's No. 3 State in SE of NW of NE of 16-9-5, one location south of discovery well and west offset to Amerada Anderson which was second Wilcox Sand well. The new well made 9110 barrels in the last 24 hours in sand from 4232 to 4240 feet.

Earlsboro apparently is cut off to the southeast by Philmack Oil Co.'s No. 1 McGraw in NW of SW of sec. 15, two locations south and one east of the new Gypsy well. This test has the hole full of water in Wilcox sand from 4333 to 4340 feet and looks like a failure.

Seminole's production March 5 was 299,835 barrels, a gain of 7400 barrels over previous day. This does not include the new well at Earlsboro. Production of the field fluctuates as wells are put on or taken off the gas lift.

In the Wewoka district, 10 miles southeast of Seminole field, J. E. Crosbie has a well flowing 960 barrels about three miles northeast of production in Wewoka field. This well is in the Smith sand from 3263 to 3266 feet. It offsets a well recently drilled by Champlin et al which is now making 50 million cubic feet of gas daily. The Crosbie well started off making 100 barrels of oil an hour.

Los Angeles Gasoline Market Weakens

LOS ANGELES, March 5.—Tendency of the petroleum products market in California this week was weaker, with virtually no spot sales upon which to base new quotations.

Recent reduction of crude prices in the Mid-Continent and other parts of the United States, with lower gasoline prices on the East Coast, is affecting the market here. Receipt of news Saturday morning of the new crude price reduction in the Mid-Continent caused predictions that prices would be reduced in California shortly. The crude market is already weak, with a few lots of free crude being offered at less than the posted price.

Gasoline is weaker, with little moving except on contracts. It was reported late this week that several tanker loads of gasoline could be purchased at less than 8 cents if the buyer would furnish tankers. The tanker situation is acute, in that none is available at any price. There would be no trouble in getting $1.50 a barrel for tankers through the Panama canal to the East coast. This rate would include canal tolls.

Fuel oil also is weak, but much of this product is moving for export. Eight tankers arrived in Los Angeles harbor Friday and seven arrived Saturday, with 13 loaded tankers departing today for various points. Several of these tankers are carrying fuel oil.

Factors Affecting Tank Car Markets Are Studied By Refinery Executives

By J. C. Chatfield
N. P. N. Staff Writer

KANSAS CITY, March 3

FACTORS affecting the tank car market for gasoline in the Mid-Continent field formed the chief subject for discussion at the annual meeting of the Western Petroleum Refiners Association held at Kansas City on March 3. The meeting occupied only one day since no sessions were given over to technical manufacturing subjects, traffic matters or other departmental activities. Attendance at the convention was confined largely to executives.

P. M. Miskell, vice president and general manager of the Empire Refineries, Inc., Tulsa was unanimously re-elected president of the association for a second term. All other officers of the organization were re-elected including Roy B. Jones, president of the Panhandle Refining Co., Wichita Falls; George D. Locke, vice president of the Barnsdall Refineries, Inc., Chicago, and C. L. Henderson, vice president of the Vickers Petroleum Co., Wichita, as vice presidents. Howard Bennette was re-elected managing director of the association by the board of directors at its meeting following the general session.

Discussion of marketing conditions at the meeting centered about the report of a special committee on some factors in the market including suggestions for aiding Platt's Oilgram in getting more complete records on tank car sales prices than has been possible in the past. Vice President Henderson, who was chairman of the committee appointed by the board of directors last December, presented the report to the meeting.

HIS committee consisted of E. H. Eddleman of the Continental Oil Co. of Texas, Wichita Falls; L. B. McCammon of the Transcontinental Oil Co., Tulsa; S. C. Collins of the Marland Refining Co., Ponca City; and G. G. Woodruff of the Roxana Petroleum Corp., St. Louis.

In summarizing its report the committee said:

"As long as the refiners are dependent on the jobbers for an outlet for material, the open market will exist.

"The refiners could not dispense with the open market, even if they so desired.

"The open market as reported on closed transactions will always probably exert some influence on the market of the moment.

P. M. MISKELL
Empire Refineries, Inc., Tulsa, re-elected president of Western Petroleum Refiners' Association

"The open market is of tremendous importance, not so much by virtue of the sales made in that market, but by reason of its influence on the volume that moves on contract and the influence it may exert on tank wagon prices when drastically out of line.

"An accurate report of the open market is a real necessity and refiners should use every effort to make this record complete and correct in all respects.

"The committee believes refiners should give equal weight in their price-determining policies to the open market that prevails by reason of competition or other factors and to the price to which they are entitled by the particular price schedules for crude and gasoline that prevailed at the time the price is to be determined.

"The committee believes that supply is within the control of refiners, but that demand, or at least profitable demand, is fairly stable and that a consideration of both prices as they should be and prices as they actually exist, in conjunction with a consideration of the physical condition of the industry with respect to rate of manufacture and stocks, would indicate when advances and recessions in price or expansion or curtailment in operations are warranted by the factors at hand.

"FOR the purposes of the refiners, we believe an accurate picture of the spot, or open market, can be obtained by a range of prices based on carload sales to customers for resale by tank wagon or to consumers; that clearly defines the quality of products sold at the range of prices shown and excludes prices on goods sold at a reduction on account of failure to fully comply with all requirements of that quality; that excludes prices on goods

ROY B. JONES
Panhandle Refining Co., Wichita Falls, Texas, reelected vice-president of W. P. R. A.

sold on contracts at contract prices and thus excludes all prices based on speculations. In the compilation of such a range of prices its exact restrictions should be fully understood and complied with by both the compiling agency and those who furnish information."

The committee commented on a suggestion made by some refiners of a possible detailed record of sales by companies.

The committee further said:

"Another method would be for all refiners to report their current sales on the open market to some agency, and that each day this agency, without divulging the identity of reporting companies, compile a composite report of the exact number of cars sold at various and specifically stated prices and the weighted average price determined by these sales.

"As information of this character would not divulge details with respect to prices of individual companies it could probably be secured and if these reports were carefully restricted to actual grades, to actual spot sales by refining companies, and included only cars for resale in less than carload lots, these prices would be more confidently accepted as an index of the open market than the information now available. The value of information with respect to the total volume of sales on the open market and the value of information that would enable refiners to discount the influence of a few sales at prices far removed from the average price, important factors made available by a report of the character suggested, requires no comment.

"HOWEVER, no matter what method of appraising the market on closed transactions may prevail, the prices of yesterday should exert no undue influence on the prices of today, and refiners in accepting a weighted average price, just as in accepting a range of prices, should not lose sight of the fact that service, quality and salesmanship command a premium. Some companies will therefore sell above and some below the average and this feature should be carefully considered, no matter to what extent the price of closed transactions is allowed to influence the market of the present.

"In view of the expressed desire of W. C. Platt to compile a market report on closed transactions, in view of our confidence in his organization to correctly and promptly handle a compilation of this nature, and in view of our belief that Mr. Platt and the organization he represents will hold in confidence the information with respect to individual companies he may receive, it is the recommendation of this committee that all companies of this association furnish Mr. Platt each day with a detailed record showing the number of cars of each grade of gasoline sold on the open market and the prices at which these cars were sold, observing the restrictions we have suggested. We would also recommend that the refiners of the association exert their influ-

(Continued on page 40)

GEORGE D. LOCKE
Barnsdall Refineries, Inc., Chicago, reelected vice-president of W. P. R. A.

Officers of the Western Petroleum Refiners Assn. as Elected at Kansas City March 3

President

P. M. Miskell, Empire Refineries, Inc., Tulsa.

Vice Presidents

Roy B. Jones, Panhandle Refining Co., Wichita Falls.
George D. Locke, Barnsdall Refineries, Inc., Chicago.
C. L. Henderson, Vickers Petroleum Co., Wichita.

Managing Director

Howard Bennette, Tulsa.

Executive Committee

Above officers as ex officio members.
Samuel C. Collins, Marland Refining Co., Ponca City.
E. H. Eddleman, Continental Oil Co. of Texas, Wichita Falls.
E. W. Goebel, Manhattan Oil Co., Kansas City.
John L. Gray, Shaffer Oil & Refining Co., Tulsa.
R. R. Irwin, White Eagle Oil & Refining Co., Kansas City.
F. A. Pielsticker, Skelly Oil Co., El Dorado, Kan.
Sheldon Clark, Sinclair Refining Co., Chicago.

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H. T. Ashton, Lubrite Refining Co., St. Louis.
V. E. Bolene, Bolene Refining Co., Enid.
D. E. Buchanan, Chestnut & Smith Corp., Tulsa.
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D. W. Moffitt, Mid Continent Petroleum Corp., Tulsa.
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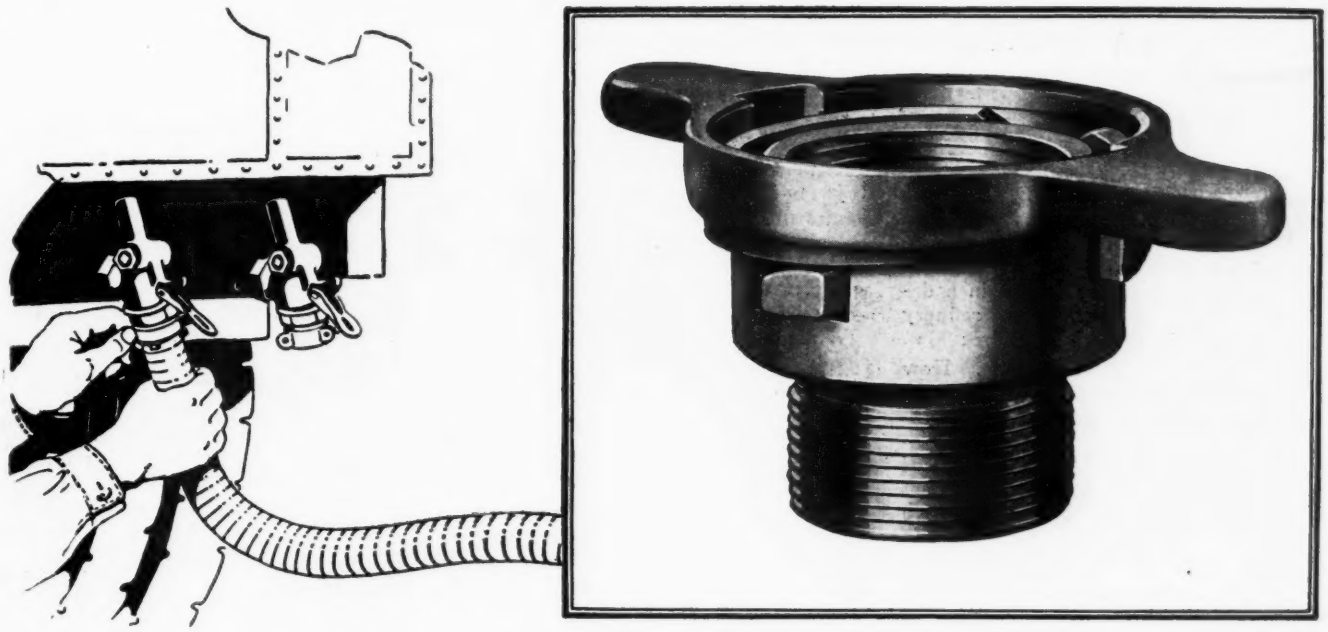
J. E. Shatford, Ouachita Valley Refining Co., El Dorado, Ark.
H. A. Trower, Phillips Petroleum Co., Bartlesville.
J. L. Walsh, Continental Oil Co., Kansas City.
G. G. Woodruff, Roxana Petroleum Corp., St. Louis.
F. W. Burford, Crystal Oil & Refining Co., Shreveport.
J. B. Edwards, White Star Refining Co., Wood River, Ill.
John McE. Ames, Kanotex Refining Co., Arkansas City, Kan.
Robert H. McElroy, Jr., Pure Oil Co., Chicago.
Edgar J. Marston, T. & P. Coal & Oil Co., Fort Worth.

Officers and members of the executive committee likewise are members of the board of directors.



This Wheaton Quick Hose Coupling
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Here the adapter is shown out of the coupling. In the larger illustration at the top of the page, the adapter is shown seated in the coupling—the correct position after the connection is made. Sizes: 1½ and 2-inches.

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Think Standardizing Refinery Equipment Would Help Fight on Corrosion

By Paul Truesdell

N. P. N. Staff Writer

CLEVELAND, March 5

THREE principal steps must be taken, in the opinion of men who know the most about the matter, if the refining industry is to win a decisive victory over corrosion of refinery equipment. These three steps are:

1—Knowledge of the problem. How are the losses caused? What is the total loss per year suffered by the industry?

2—Some degree of standardization of refinery equipment, at least that part of it that is operated under corrosive conditions.

3—A liberal and reasonable attitude of the companies holding patents covering manufacturing of stainless iron and stainless steel, which are chromium alloys.

The committee on corrosion, appointed recently by E. W. Clark, president of the American Petroleum Institute is doing preliminary work. This committee consists of: Frank N. Speller, National Tube Co., Pittsburgh, chairman; E. P. Bly, Standard Oil Co. of California; W. G. Heltzel, Sinclair Oil & Gas Co.; F. Ray McGraw, Standard Pipe Line Co. of Louisiana; H. F. Perkins, Gulf Refining Co.; Ralph J. Reed, Union Oil Co. of California; C. R. Weidner, Prairie Pipe Line Co.; C. C. Lakin, Standard Oil Co. of Indiana.

WITH the idea that the first step in tackling the corrosion problem was to find out just what the problem is and how big it is, this committee was restricted to small membership and was made up of the men in the various branches of the industry that in their discussions had shown the most helpful knowledge of the subject. Mr. Speller doubtless was asked by President Clark to head up the committee because of his outstanding position in the metallurgical world and his knowledge of corrosion problems as disclosed in his recent book on the subject.

This committee will meet June 16 at Colorado Springs in connection with the meeting of the standardization committees of the American Petroleum Institute. At that time it is likely that the committee will have a definite program of recommendations to lay before the American Petroleum Institute directors.

Probably in the near future the committee may send out a letter to oil companies who are members of the Institute asking for those companies' experience with corrosion, what their losses are and any knowledge they may have on methods for fighting corrosion. It is understood that a good many companies have been and are doing important work on reducing corrosion in their own plants. It is hoped that they will give the whole industry the benefit of their findings and their experience.

While the problem is by no means simple of fitting non-corrosive materials into the construction and operating needs of the refineries, at the same time it is felt that the one thing that is holding back the general use of corrosion-resisting metals in refineries is the matter of price. The controlling factors in this price situation seem to be:

1—The wide variety of shapes, sizes and designs of equipment used in refineries.

2—An awkward patent situation in the steel industry.

ONE of these factors is within the control of the oil industry and the other of the steel industry.

The steel manufacturers undoubtedly cannot sell at as low a price, refinery equipment when they have to make it in small quantities to widely varying dimensions and specifications, as they could if the material was to be furnished in larger quantities and in comparatively similar dimensions, shapes and designs.

It would seem that now is a good time for the American Petroleum Institute to extend the standardization program it carried out so successfully in relation to equipment used in the producing fields, to at least certain parts of refinery equipment. During the two or three years prior to 1926, development of new refining processes and equipment for carrying them out was rapid.

As pointed out by C. H. Osmond at the A. I. M. E. meeting in New York last month, 1926, was a year in which invention slowed up while the industry bent its energies to adapting, installing and perfecting the new equipment and new methods. Now that this process of assimilation is well under way, the logical next step would seem to be toward standardization.

This would not be a simple problem. Of course, manufacturers of special cracking equipment, special towers, proprietary heat exchangers and so on could not and should not be expected to give up any advantage they have in the special design of their equipment or the dimensions they use. However, it seems likely that to obtain some degree of standardization of those parts of equipment that are exposed to corrosion might not be so difficult as it looks. It would appear, for instance, that only one or two sizes of pipe might be made standard for coils used in the regulation of fractionating tower temperatures, for nozzles for use on cracking reaction chambers and so on.

WHEN the matter sifted down it would likely be found that the difficulties in the way of standardizing refinery equipment would be no more serious than those met with in standardizing producing equipment. Most of these have been ironed out to the benefit of everybody.

And the advantages of standardizing oil field tools and equipment, it seems to us, were less tangible, although sufficiently important, than those to be obtained by standardizing refinery units so as to make possible use of corrosion resisting metals at a reasonable price.

While it was evident to users and manufacturers of oil country equipment that much lost motion and needless expense were caused by the fact that certain tools would not fit certain sockets and that there were many types and sizes of threads and so on on various tools, they did not stand to make the enormous saving that seem to lie before the refiners if they can reduce corrosion.

While there are no accurate figures on the sum the corrosive compounds found in crude oil or generated in the distillation and cracking processes cost the refiner, men who are not inclined to wild guessing have roughly estimated it at $200,000,000 a year. If those figures are anywhere near correct it would seem that a lot of effort would be justified if it succeeded in cutting down the amount of this pure waste.

ANOTHER factor that may have important bearing on the extensive use of chromium alloys in refineries is the patent situation. Steel men point out that the patent situation in regard to chromium alloy steel is somewhat similar to that existing in the oil business in regard to the cracking of oil.

One company, the Stainless Steel Corp. of America owns the two principal patents purporting to cover the manufacture of chromium alloys.

We don't know what the attitude of the companies interested in these stainless steel patents is but it is plain to see that if they attack conditions to the manufacture of stainless iron which are prohibitive or even burdensome, they will postpone for some time the general use of such material in the refineries.

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Compilation Of Mid-Continent Refinery Operations

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National Petroleum News

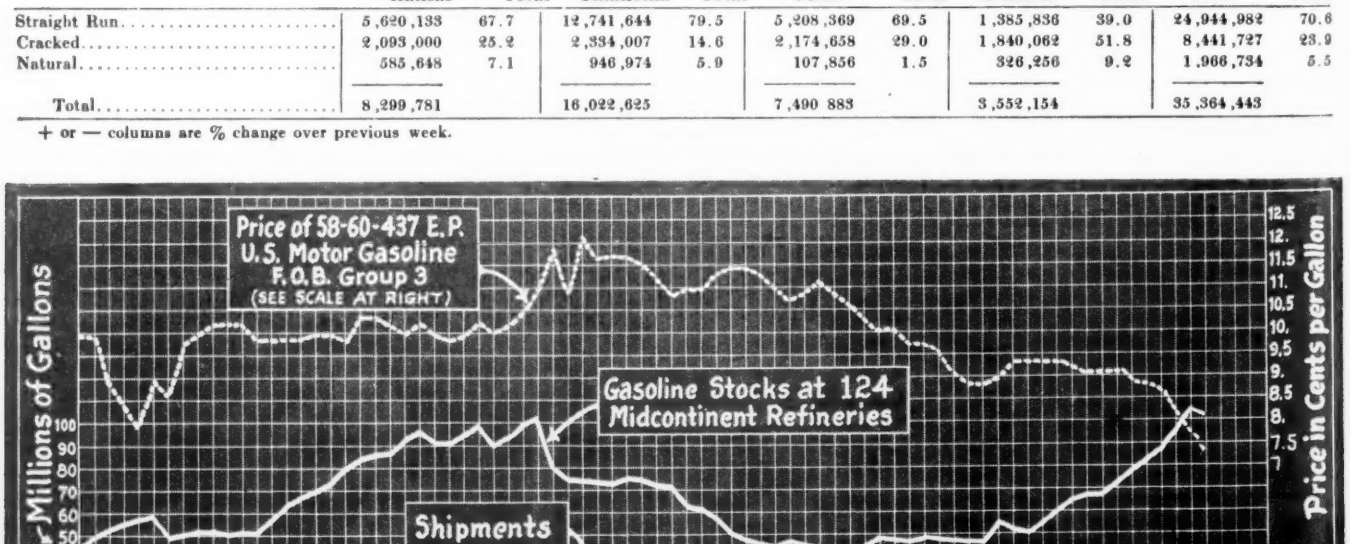
Mid-Continent Refinery Operations Week Ended Mar. 4 (By Telegraph)

	Kansas	Oklahoma	North and Cent. Texas	North La.-Ark.	Total Week Ended March 4	Total Week Ended Feb. 4
Plants Reporting	23	46	41	14	124	124
Crude Cap. (Bbls.)	98,200	165,900	144,300	53,700	462,100	462,100
Cracking Capacity	21,000	45,800	15,750	20,200	102,750	102,750
Da. Av. Crude Runs	54,736 — 0.5	107,310 — 1.8	68,937 — 1.3	44,613 —12.1	275,596 — 3.3	261,238
Da. Av. Other Oils	4,724 + 1.6	3,473 +21.1	6,405 — 16.9	1,211 —30.1	15,813 — 6.7	16,781
GASOLINE—Gallons						
Stocks Feb. 25	12,243,896	65,842,119	17,362,598	4,645,473	100,094,086	79,297,487
Prod. 2-25 to 3-4	8,298,781 + 5.0	16,022,625 + 0.6	7,490,883 + 0.7	3,552,154 — 6.6	35,364,443 + 0.8	34,585,321
Ship. 2-25 to 3-4	8,746,347 +26.1	15,490,747 + 4.4	6,686,495 + 0.8	2,892,036 —16.8	33,815,625 + 6.1	30,214,153
Stocks March 4	11,796,330 — 3.7	66,373,997 + 0.8	18,166,986 + 4.6	5,305,591 +14.2	101,642,904 + 1.5	83,668,655
Ratio Sales to Prod	105.4%	96.7%	89.3%	81.4%	95.6%	87.4%
KEROSENE—Gallons						
Stocks Feb. 25	2,803,564	8,506,718	2,532,859	1,208,871	15,052,012	12,823,129
Prod. 2-25 to 3-4	1,648,037 + 6.8	2,627,874 —17.0	1,434,800 — 19.5	413,823 —20.8	6,124,534 —12.7	5,604,045
Ship. 2-25 to 3-4	1,607,376 +60.7	2,483,915 +13.2	1,473,544 + 8.5	409,961 — 5.8	5,974,796 +20.0	5,371,335
Stocks March 4	2,844,225 + 1.5	8,650,677 + 1.7	2,494,115 — 1.5	1,212,733 + 0.3	15,201,750 + 1.0	13,055,830
Ratio Sales to Prod	97.5%	94.5%	102.7%	99.1%	97.6%	95.8%
STOVE DISTILLATE—Gallons						
Stocks Feb. 25	1,656,902	3,392,639	1,200,799	45,592	6,295,932	7,525,248
Prod. 2-25 to 3-4	828,683 +27.3	792,435 +17.2	526,963 + 5.0	49,686 —39.7	2,197,767 +15.0	1,545,578
Ship. 2-25 to 3-4	673,607 +15.0	458,570 —29.4	151,577 — 61.7	50,338 —34.3	1,334,092 —21.9	2,386,484
Stocks March 4	1,811,978 + 9.4	3,726,504 + 9.8	1,576,185 + 31.3	44,940 — 1.4	7,159,607 +13.7	6,684,337
Ratio Sales to Prod	81.3%	57.9%	28.8%	101.3%	60.7%	154.4%
GAS OIL—Gallons						
Stocks Feb. 25	3,884,878	33,897,084	11,576,212	4,905,574	54,263,748	46,957,324
Prod. 2-25 to 3-4	1,328,810 —29.1	2,109,845 —20.9	2,039,266 + 39.4	2,667,623 — 3.8	8,145,544 — 7.2	8,261,495
Ship. 2-25 to 3-4	1,175,810 —12.0	1,398,575 — 7.3	1,604,873 +135.2	1,710,977 —33.1	5,890,298 — 3.2	7,904,689
Stocks March 4	4,037,815 + 3.9	34,608,354 + 2.1	12,010,605 + 3.8	5,862,220 +19.5	56,518,994 + 4.2	47,314,130
Ratio Sales to Prod	88.5%	66.3%	78.7%	64.1%	72.3%	95.7%
FUEL OIL—Gallons						
Stocks Feb. 25	8,211,902	44,554,143	14,663,005	5,259,281	72,688,331	78,246,977
Prod. 2-25 to 3-4	5,267,543 — 6.2	7,365,120 + 6.0	8,095,274 — 6.2	7,822,297 + 9.6	28,550,234 + 0.7	25,659,490
Ship. 2-25 to 3-4	4,619,750 —25.5	7,373,916 —24.4	7,324,543 — 0.3	6,692,999 —12.5	25,011,208 —15.6	28,527,225
Stocks March 4	8,859,695 + 7.9	45,545,347 + 2.2	15,433,736 + 5.3	6,388,579 +21.5	76,227,357 + 4.9	75,379,242
Ratio Sales to Prod	87.7%	86.5%	90.5%	85.6%	87.6%	111.2%

Gasoline Produced by Various Methods, Week Ended Mar. 4

	Kansas	% of Total	Oklahoma	% of Total	Texas	% of Total	Louisiana-Arkansas	% of Total	Total	% of Total
Straight Run	5,620,133	67.7	12,741,644	79.5	5,208,369	69.5	1,385,836	39.0	24,944,982	70.6
Cracked	2,093,000	25.2	2,334,007	14.6	2,174,658	29.0	1,840,062	51.8	8,441,727	23.9
Natural	585,648	7.1	946,974	5.9	107,856	1.5	326,256	9.2	1,966,734	5.5
Total	8,299,781		16,022,625		7,490 883		3,552,154		35,364,443	

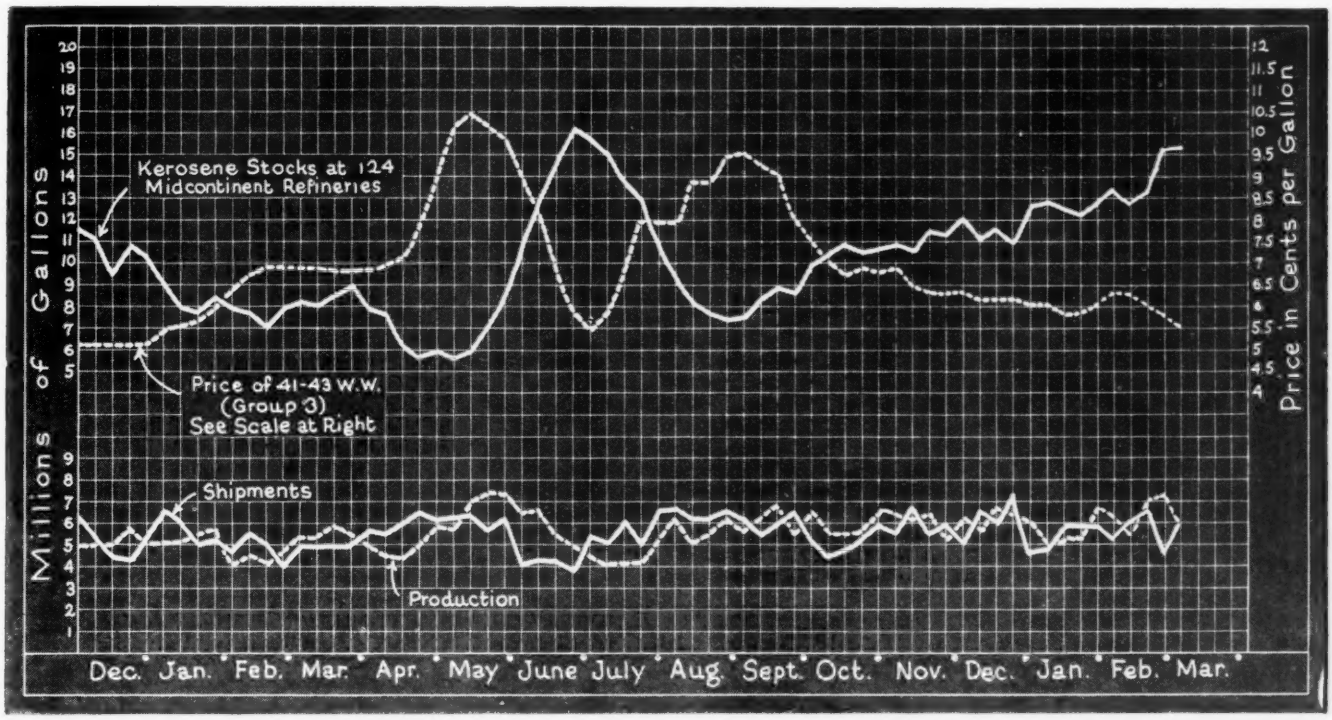
+ or — columns are % change over previous week.


Price of 58-60-437 E.P. U.S. Motor Gasoline F.O.B. Group 3 (SEE SCALE AT RIGHT)
Gasoline Stocks at 124 Midcontinent Refineries
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Oct. Nov. Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar.

Barometer of Mid-Continent Refinery Market—Week Ending March 4

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

KEROSENE


Millions of Gallons
Price in Cents per Gallon
Kerosene Stocks at 124 Midcontinent Refineries
Price of 41-43 W.W. (Group 3) See Scale at Right
Shipments
Production
Dec. Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar.

Gasoline Stocks Gain as Cracking is Increased

Staff Special—By Telegraph

TULSA, March 8

SHIPMENTS of gasoline from 124 refineries in the Mid-Continent field increased 2,000,000 gallons in the week ended March 4, refiners reported to National Petoleum News. The total movement for the week was 33,815,625 gallons, a volume exceeded only once so far this year.

Most of the increase in sales was reported by Oklahoma and Kansas plants. Oklahoma refiners increased their shipments 700,000 gallons and Kansas refiners 1,800,000 gallons. Texas shipments were unchanged while Arkansas and north Louisiana plants showed a decrease of 600,000 gallons.

Production of gasoline at all plants was almost on the level of the preceding week. There was a slight increase of 280,000 gallons, bringing the total for all plants to 35,364,443 gallons. Due to the increased movement from refineries stocks were increased only 1,500,000 gallons to 101,642,904 gallons. At the present rate of shipments stocks represent 21 days' supply. On March 5, 1926, the same group of plants held 96,300,080 gallons of gasoline, representing 22 days' supply at the rate of shipment current then.

Crude charges to stills at the 124 plants were reduced 9300 barrels daily average at all plants to a daily average of 275,596 barrels.

Every group showed a smaller throughput of crude. Kansas runs were reduced 200 barrels daily average, Oklahoma runs 2000 barrels, Texas runs 900 barrels, and north Louisiana and Arkansas runs 6100 barrels.

The slight increase in gasoline poduction in spite of the smaller crude charges is attributed to increased cracking. Production of straight run gasoline was decreased 1,200,000 gallons to 24,955,982 gallons, or 70.6 per cent of the total. Cracked gasoline production was 8,441,727 gallons, an increase of 1,320,000 gallons to 23.9 per cent of the total. Refiners used 200,000 gallons more natural gasoline, bringing that total to 1,966,734 gallons or 5.5 per cent of the total.

Production and shipments of keosene almost balanced. Production was 6,124,534 gallons, only 150,000 gallons more than the total shipments of 5,974,796 gallons. Stocks at the end of the week were 15,201,750 gallons.

Stocks of stove distillate increased for the second consecutive week. Shipments for the week fell 370,000 gallons or 21.9 per cent to 1,334,092 gallons. Production for the week was 2,197,767 gallons and stocks increased 860,000 gallons to 7,159,607 gallons.

Both production and shipments of gas oil were reduced slightly and stocks continued to increase. The total addition to reserves was 2,200,000 gallons, bringing stocks to 56,518,994 gallons.

Shipments of fuel oil fell sharply. The reduction from the last week in February was 4,500,000 gallons to 25,011,208 gallons. Stocks increased 3,600,000 gallons, the first increase of consequence since early last fall. Total stocks at the end of the week were 76,227,357 gallons.

Summary for the Month

Production and shipments, all reporting refineries for four weeks ended March 4. Change in stocks figured from Feb. 4.

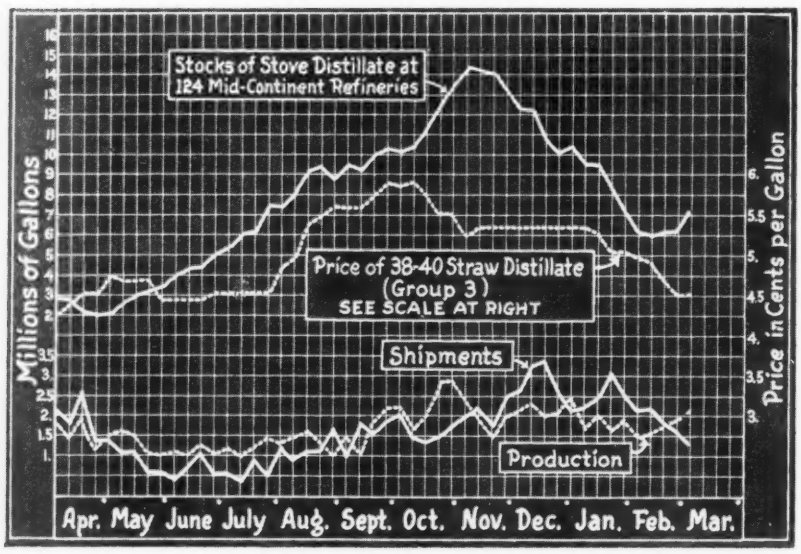
	Gallons
Gasoline	
Production	141,664,381
Shipments	123,690,132
Net change in stocks	+17,974,249
Ratio sales to production	87.3%
Kerosene	
Production	25,570,766
Shipments	23,424,855
Net change in stocks	+2,145,911
Ratio sales to production	91.6%
Stove Distillate	
Production	7,663,824
Shipments	7,188,554
Net change in stocks	+475,270
Ratio sales to production	93.8%
Gas Oil	
Production	34,646,595
Shipments	25,441,731
Net change in stocks	+9,204,864
Ratio sales to production	73.4%
Fuel Oil	
Production	113,241,671
Shipments	112,393,556
Net change in stocks	+848,115
Ratio sales to production	99.3%

Barometer of the Mid-Continent Refinery Market

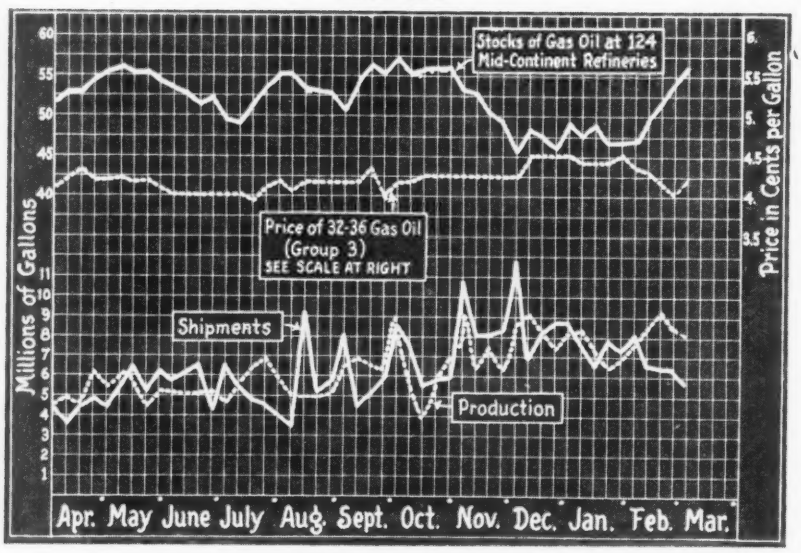
Week Ending March 4

Charted Course of Prices, Production, Shipments, Stocks of Principal Refined Products, Week by Week, From Reports Made by 124 Plants to National Petroleum News

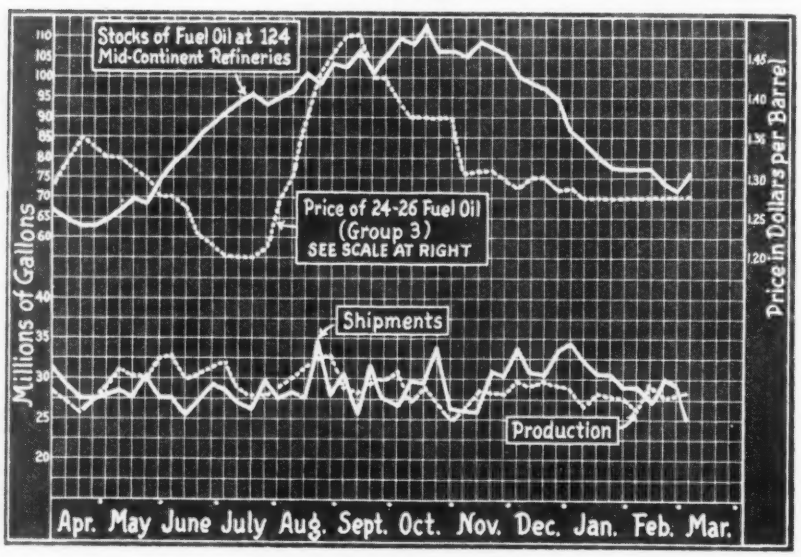
STOVE DISTILLATE


Stocks of Stove Distillate at 124 Mid-Continent Refineries
Price of 38-40 Straw Distillate (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar.

GAS OIL


Stocks of Gas Oil at 124 Mid-Continent Refineries
Price of 32-36 Gas Oil (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Cents per Gallon
Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar.

FUEL OIL


Stocks of Fuel Oil at 124 Mid-Continent Refineries
Price of 24-26 Fuel Oil (Group 3) SEE SCALE AT RIGHT
Shipments
Production
Millions of Gallons
Price in Dollars per Barrel
Apr. May June July Aug. Sept. Oct. Nov. Dec. Jan. Feb. Mar.

Automobile Production Is Speeded Up

NEW YORK, March 5,—Automotive Industries this week said:

The month opens with most of the large producers of motor cars at or near capacity operations. Although sales are showing a territorial variation in volume, they are not far below the level of a year ago for the industry as a whole, and in particular instances they are exceeding former marks for the season. The market is not as good as last year in the South, but is somewhat better in nearly all other parts of the country.

The excellent domestic sales record for new cars established in February was made in the face of obstacles that might fairly have been expected to cut heavily into the market. Reports of unusually keen competition in the industry circulated in the early part of the year apparently led to an expectation of price cuts. When this proved unfounded the public began buying.

Former Gulf Man Now Aid to Roy B. Jones

WICHITA FALLS, TEX., March 7.—W. D. Brookover, who has spent 23 of his 35 years in the producing end of the oil business, recently resigned as assistant superintendent of production for the Gulf Production Co. at Fort Worth, in order to become assistant to Roy B Jones, president of the Panhandle Refining Co., Wichita Falls.

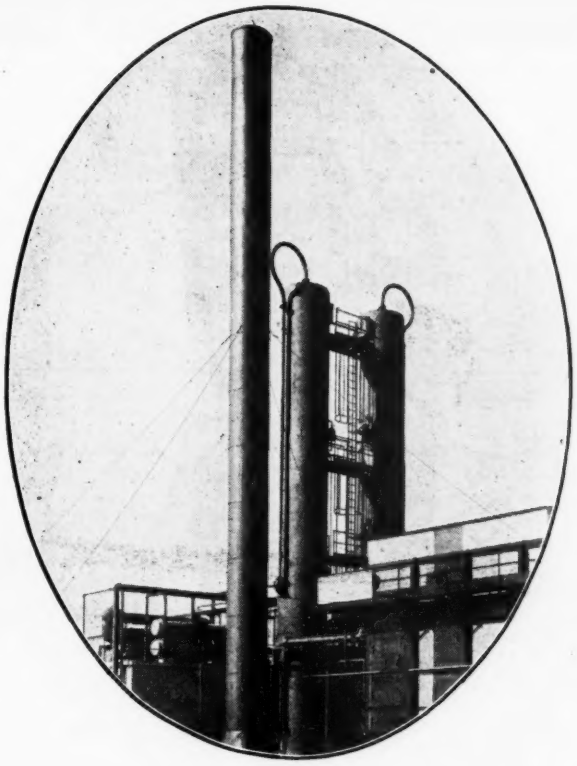
Mr. Brookover began his oil career in West Virginia at the age of 12. He was first employed by the Hope Oil & Gas Co. in West Virginia and was later transferred to Kansas. After several years he entered the contracting business for himself. When he gave up his own business, he joined Empire Refineries, Inc. as district superintendent of production in Oklahoma. He was later transferred to Texas in the same capacity.

In 1920 he became a member of the production department of the Gulf company at Breckenridge, where he remained until 1925. In that year he was transferred to Wichita Falls to take charge of the Gulf's activities in that district and later was sent to the Texas headquarters of the company at Fort Worth, where he was assistant to H. A. Melat, general superintendent.

Mr. Brookover is married and has two children.

Cased Goods from Los Angeles

LOS ANGELES, Mar. 5.—Vessels leaving Los Angeles harbor Feb. 11 to 26, inclusive, carried a total of cased goods as follows: 819,171 gallons of gasoline, 875,090 gallons of kerosene, 118,046 gallons of lube oils, 18,344 gallons of distillates and 8140 pounds of grease. Most of the movements went to the Far East, although Mexico, and Australia were fair customers.



INCREASED YIELDS

INCREASED PROFITS

A Tube Still Installation, increasing as it does both production and profits, deserves the attention of every progressive refiner. In fact, those who are not taking this step forward, will soon be forced to do so in order to meet competition.

As it costs nothing to acquaint yourself with all details regarding the operating advantages and total initial cost of a tube still properly designed to meet your requirements, we urge you to act promptly.

Merely send us sufficient data on your operations and plant conditions to enable us to determine the proper tube still construction, and we will gladly submit our recommendations and a definite proposal on the complete installation.

ASSOCIATES

The WIDDELL ENGINEERING CO.

CONSULTING ENGINEERS

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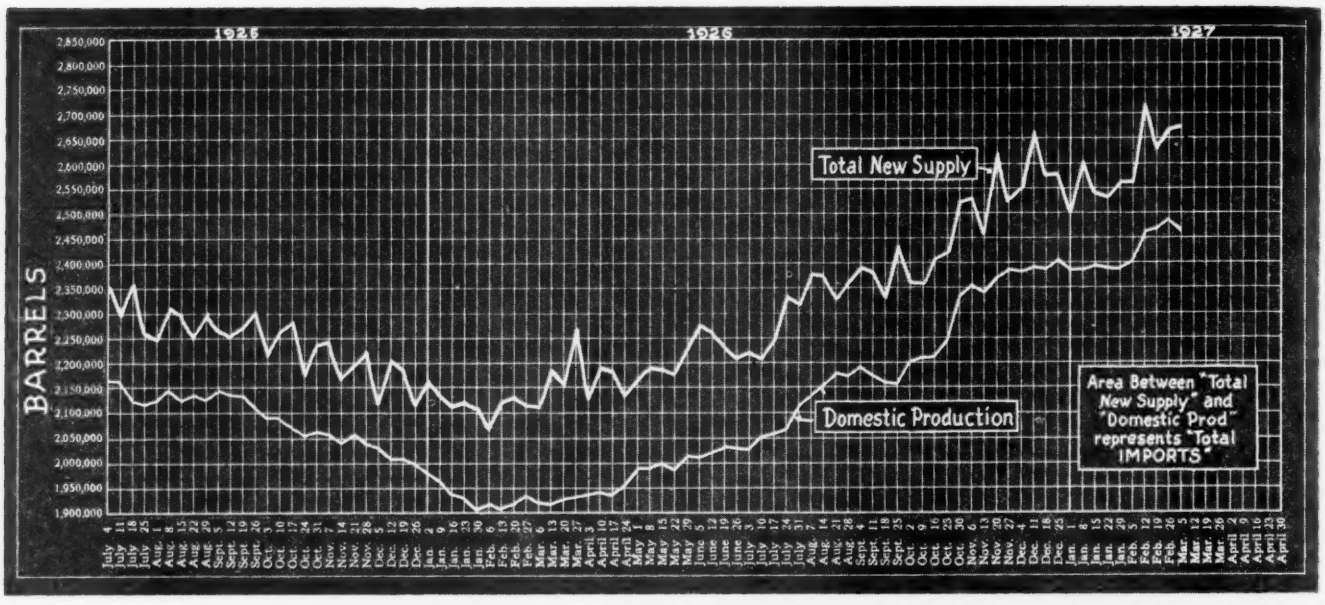
ENGINEERS & CONTRACTORS

2422 EUCLID AVE — CLEVELAND, OHIO

Pipe Stills	Treating Plants	Economizers and Heat Exchangers
Shell Stills	Boiler and Power Plants	Filter Houses
Wax Plants	Gas Recovery Plants	Piping and Equipment Installations

Daily Average Crude Oil Production and Imports



Daily average gross output of United States, by fields, for week ending with dates below, as compiled by American Petroleum Institute

Production Summary

	Mar. 5	Feb. 26
Production east of Rockies	1,818,450	1,843,250
Decrease		24,800
Total Production in U. S.	2,464,050	2,486,350
Decrease		22,300
Crude Oil Imports	204,285	180,714
Increase		23,571
Total Crude Supply	2,668,335	2,667,064
Increase		1,271

OKLAHOMA

	Mar. 5	Feb. 26
North Braman	7,650	8,200
South Braman	4,550	4,600
Blackwell	4,000	4,000
Hubbard	5,450	5,200
Thomas	1,750	1,750
Tonkawa	25,350	25,650
Garber	18,400	18,550
Burbank	49,550	48,950
Osage, outside Burbank	35,050	35,100
Watchorn	2,750	2,750
Cushing	21,250	21,200
Yale Jennings	11,950	12,200
Davenport	3,850	3,800
Bristow-Slick	27,250	27,250
North Okmulgee	16,950	16,900
Lyons-Deaner	4,450	4,450
Stroud	1,650	1,500
Cromwell	13,700	13,550
Papoose	7,450	7,900
Wewoka	18,750	18,200
Seminole	278,700	296,200
Duncan district	6,800	6,800
Graham	8,950	8,950
Fox	1,900	1,900
Healdton	15,000	14,950
Scholem Alechem	14,750	14,800
Hewitt	10,500	10,400
Earlsboro	20,000	19,300
Others	63,050	62,950
Total Oklahoma	701,400	717,950
Decrease		16,550

KANSAS

	Mar. 5	Feb. 26
Greenwood County	42,100	42,000
Florence-Covert	1,900	1,900
Peabody-Elbing	3,850	3,850
Eldorado-Towanda	13,200	13,250
Augusta-Fox-Bush	4,650	4,650
Rainbow Bend	2,750	2,800
Russell	3,400	3,400
Churchill	15,150	14,350
Others	29,400	29,500
Total Kansas	116,400	115,700
Increase		700

NORTH LOUISIANA

Homer	5,350	5,350
Haynesville	8,150	8,150
Caddo, light	10,050	10,200
Caddo, heavy	4,550	4,750
De Soto, Red River	4,050	4,000
Elm Grove	700	750
Bellevue	1,500	1,500
Cotton Valley	6,100	6,100
Urania	12,100	12,250
Total North Louisiana	52,550	53,050
Decrease		500

ARKANSAS

El Dorado	6,050	6,100
Smackover, light	11,700	11,950
Smackover, heavy	99,450	100,450
Stephens	1,400	1,400
Nevada	1,800	1,800
Lisbon	5,050	5,050
Others	200	200
Total Arkansas	125,650	126,950
Decrease		1,300

TEXAS (OUTSIDE GULF COAST)

Panhandle District

Hutchinson County	111,100	114,200
Gray County	7,500	6,850
Carson County	8,050	7,700
Wheeler County	1,500	1,550
Others	50	50
Total Panhandle District	128,200	130,350
Decrease		2,150

North Texas

Burkburnett	13,900	14,000
Electra	15,050	15,150
Iowa Park and K-M-A	4,750	4,850
Wilbarger	13,700	13,900
Archer County	30,050	31,000
Montague-Cooke	13,000	13,100
Others	1,050	1,050
Total North Texas	91,500	93,050
Decrease		1,550

West Central Texas

Stephens County	9,350	9,600
Eastland-Desdemona	5,550	5,600
Brown County	37,000	34,500
Coleman County	1,700	1,700
Callahan County	6,750	6,700
Shackelford County	15,700	13,000
Young County	8,300	8,500
Throckmorton County	4,000	4,000
Palo Pinto County	2,700	2,700
Jones County	3,600	3,700
Mitchell & Scurry Counties	4,050	3,950
Howard County	2,250	2,350
Reagan County	28,050	27,800
Crane & Upton Counties	42,000	45,000
Pecos County	4,600	7,250
Others	2,650	3,100
Total West Cent. Texas	178,250	179,450
Decrease		1,200

East Central Texas

	Mar. 5	Feb. 26
Mexia	11,100	11,200
Currie	700	700
Richland	1,100	1,200
Wortham	4,450	4,550
Corsicana-Powell	20,000	20,550
Nigger Creek	6,100	6,200
Total East Cent. Tex.	43,450	44,350
Decrease		900

Southwest Texas

Luling	18,200	18,400
Lytton Springs	2,150	2,250
Somerset	1,500	1,500
Laredo District	14,900	15,000
Piedras Pintas	100	100
Others	650	650
Total Southwest Texas	37,500	37,900
Decrease		400
Total Texas (Outside Gulf Coast)	478,900	485,100
Decrease		6,200

GULF COAST

Coastal Texas

	Mar. 5	Feb. 26
West Columbia	10,150	9,750
Damon Mound	950	950
Big Creek	4,550	2,550
Boling	1,750	1,900
Blue Ridge	2,150	1,850
Pierce Junction	10,050	7,200
Humble	4,100	4,200
Goose Creek	7,350	7,000
South Liberty	4,050	3,550
Hull	16,650	17,650
Saratoga	1,200	1,250
Batson	1,750	1,800
Sour Lake	5,350	6,150
Spindletop	60,600	61,100
Orange County	5,300	5,050
Others	4,000	3,800
Total Coastal Texas	139,950	135,750
Increase		4,200

Coastal Louisiana

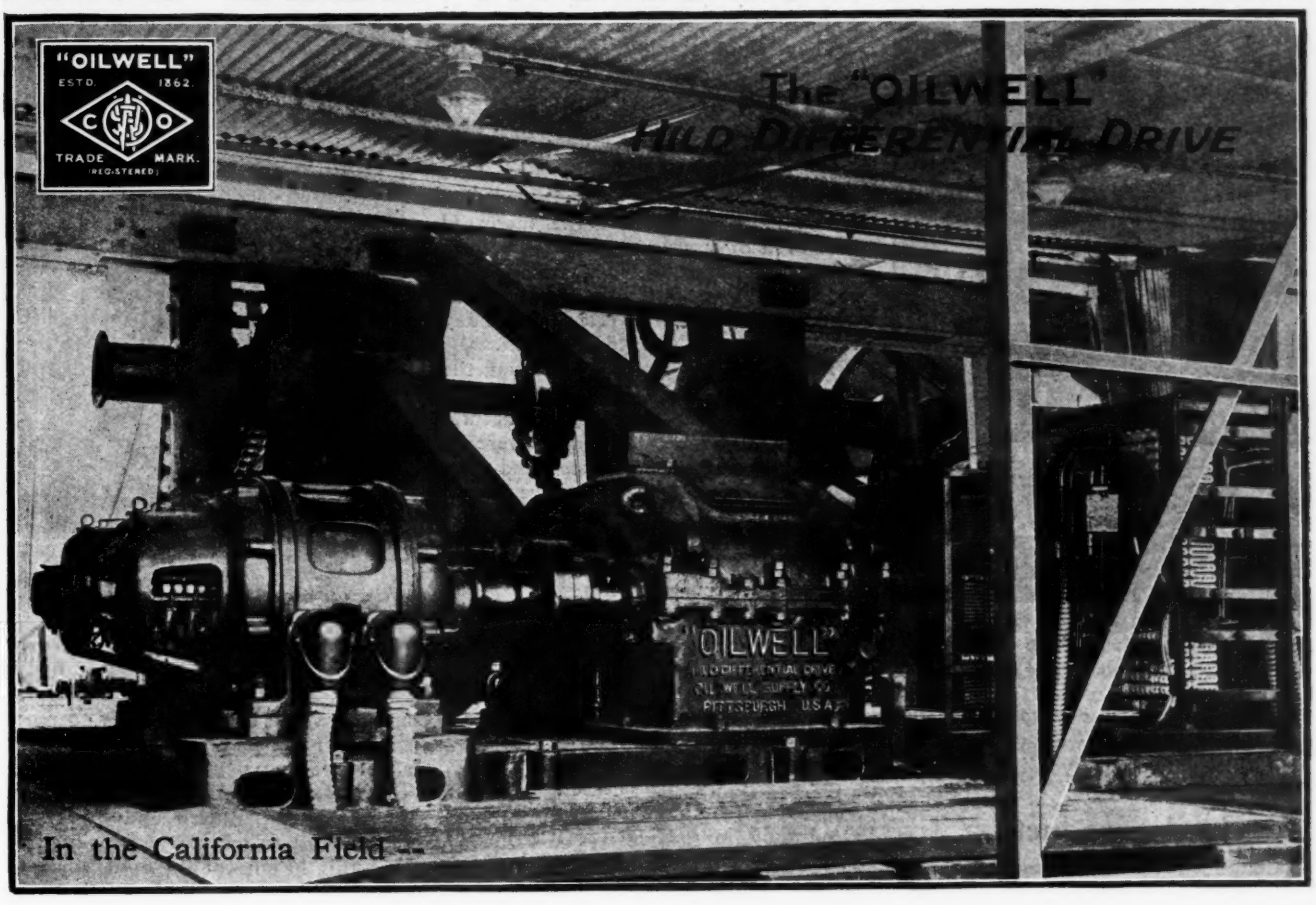
Vinton	5,400	5,500
Lockport	3,000	3,100
Evangeline	1,050	1,100
Edgerly	1,250	1,000
Others	3,500	600
Total Coastal Louisiana	14,200	11,300
Increase		2,900
Total Gulf Coast	154,150	147,050
Increase		7,100

ROCKY MOUNTAIN

Wyoming

	Mar. 5	Feb. 26
Salt Creek	38,850	45,650
Grass Creek	2,900	2,900
Elk Basin	950	950
Big Muddy	2,850	2,800
Lost Soldier	3,750	3,550

AUTOMATIC FEED *and* RETRIEVE
HAVE BEEN THOROUGHLY PROVEN



Drilling operations in California and Texas during the past two years have definitely proven the "OILWELL" Hild Differential Drive.

The original outfit is still in use in California and succeeding outfits are all proving the numerous advantages of Automatic Feed and Retrieve for rotary drilling.

With this device the bit is automatically fed and automatically retrieved or lifted upon suddenly encountering hard formations.

Additional advantages of "OILWELL" Hild Differential Drive are:

1. Faster drilling.
2. Cheaper drilling—less wear and tear on the drilling equipment, resulting in lower maintenance costs.
3. Straight hole.
4. Deeper drilling range because of better protection for the drilling equipment.
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Send for special Bulletin descriptive of this device, or inquire at any of our 100 Branches.

OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

Refinery Executives Study Tank Car Market

(Continued from page 29)

C. L. HENDERSON
Vickers Petroleum Co., Wichita, Kans., re-elected vice-president of W. P. R. A.

ence with other refiners of Group 3 to help Mr. Platt obtain similar information that will enable the weighted average price he may show more fully to cover all transactions of Group 3."

VARIOUS subjects pertaining to the market situation were discussed by F. A. Pielsticker, Skelly Oil Co.; D. W. Moffitt, Mid-Continent Petroleum Corp., R. R. Irwin, White Eagle Oil & Ref. Co.; R. B. Jones, Panhandle Ref. Co., and L. R. Crawford, Producers & Refiners Corp., Denver.

They emphasized that the refiners should give due regard to the danger of over-production of gasoline and warned against disregarding costs.

It was particularly pointed out that restriction of runs which keep the market for gasoline from dropping would more than offset the increased cost even of storing crude.

The discussion also emphasized the desirability of the executives of a company making the sales price for the day rather than the sales department.

The discussion also brought out the fact that in fighting for business in territories which border the natural market for Group 3, refiners were in hot competition for business and that the low prices made there were eventually reflected in the price prevailing over all the natural territory of the Group; that unless refiners could sell in this border line territory at a profit they would do better to pass up entirely the small gallonage they could obtain at cut prices there.

The details of a more elaborate collection of market information are now being worked out with Mr. Platt, publisher of the Oilgram.

Mr. Platt was present by invitation and stated that his company was interested only in getting for the benefit of the whole industry as accurate a picture of the market as possible.

He said there was considerable misunderstanding of even the fundamental factors of the market: for illustration, that the trade, regardless of the origin of goods was dealing on a Group 3 basis whereas the only people who actually made Group 3 prices were refiners in Group 3. However, the prices made by refiners outside would have an effect upon prices in the group.

HE pointed out that in the rush of contracting as much of their output as possible, refiners had overlooked the fact that those contracts were based on the spot market and that many of them did not leave enough material moving on the open market for them to have any voice in the making of it and that therefore, for the most part, they were selling on prices made by their competitors.

For illustration, he said, seven of the largest refiners in Group 3 who contracted on the open market pretty heavily had, however, only 18 per cent of their gasoline being sold from day to day on the open market; the balance being contracted thereon, and yet those refiners represented 62 per cent of the capacity of the group.

Some refiners were moving as low as 5 per cent of their output on the spot market. He argued that a healthy spot market should be one with everyone moving a considerable quantity of goods upon it every day; that such a market would be much easier to report and would be more readily accepted by all buyers and sellers.

A committee was appointed to redraft the constitution and by-laws of the association when it was pointed out that this has not been done since the organization was formed and that some of the old provisions are not now in harmony with the association's policies. George D. Locke was made chairman of the committee, and R. R. Irwin and Walter K. Campbell were appointed to assist in the work. No changes were made in the general policies of the organization or in the scope of its activities for the coming year. There were approximately 60 refinery executives at the meeting.

HOWARD BENNETTE
Reelected managing director of W. P. R. A.

Crude Production

(Continued from preceding page)

	Mar. 5	Feb. 26
Rock River	2,950	3,050
	750	750
Teapot Dome	1,050	900
Others	2,700	2,250
Total Wyoming	56,750	62,800
Decrease		6,050
Montana		
Cat Creek	2,350	2,350
Sunburst	11,000	11,000
Others	200	200
Total Montana	13,550	13,550
Colorado		
Moffat (Craig)	2,500	2,700
Fort Collins	3,950	3,800
Florence	600	600
Others	1,300	950
Total Colorado	8,350	8,050
Increase		300
New Mexico		
Artesia	2,000	2,000
Hogback	750	800
Table Mesa	400	450
Rattlesnake	1,600	2,300
Total New Mexico	4,750	5,550
Decrease		800
Total Rocky Mountain	83,400	89,950
Decrease		6,550
CALIFORNIA		
Santa Fe Springs	44,500	45,500
Long Beach	92,000	92,000
Huntington Beach	76,500	80,500
Torrance	25,000	25,000
Dominguez	18,000	18,000
Rosecrans	11,500	11,500
Inglewood	38,500	38,500
Midway-Sunset	90,500	90,500
Ventura Avenue	51,600	50,900
Seal Beach	26,000	19,200
Others	171,500	171,500
Total California	645,600	643,100
Increase		2,500
EASTERN		
(Including Ill., Ind., Ky., Ohio, W. Va., Pa., and N. Y.	106,000	107,000
Decrease		1,500

Wet Gas Found In Two Richland Tests

HOUSTON, March 4.—Wet gas found in two tests in Richland parish, Louisiana, upset earlier ideas of the area northeast of Urania oil development, in the direction of the Mississippi river, because of the depths from which the flows are coming.

Palmer Corp.'s test in 33-17-6E is flowing 22,000,000 cubic feet daily, the gas testing 425 gallons of raw natural gasoline to the million cubic feet, at total depth of 2432 feet. Latex Petroleum Co., in 22-17-5E, had 2,000,000 cubic feet of gas, testing 452 gallons of raw natural gasoline per million cubic feet. The Latex pay at 2470 feet is lower structurally than the Palmer Corp.'s find.

Magnolia Leads in Oklahoma Crude Cut; Seminole Production Drops

By A. F. Hinton
N. P. N. Staff Writer

AFTER a lapse of only 11 days, Mid-Continent crude received its second reduction this morning when the Magnolia Petroleum Co. posted a new price schedule for Oklahoma, Kansas and Texas. Not only did it reduce the price, but it followed the example set by the Carter Oil Co. on two recent occasions, and again cut down the differential between grades, making it 3 cents instead of 4.

Under this schedule, which was met by the Prairie Oil & Gas Co. and all other principal crude buyers shortly after it was issued by the Magnolia, prices run from $1.23 for crude grading 28 to 28.9 gravity up to $1.95 for 52 to 52.9 gravity. This is a reduction of 12 cents on the lowest grade and of 36 cents on the top grade. Seminole crude, which is 41 gravity, is now quoted at $1.62, as compared with $1.87 under the previous schedule and $2.15 under the price that prevailed from November till February. Thus Seminole crude has been reduced 53 cents in less than two weeks.

The crude price reductions came at a time when Oklahoma production was registering its first decrease since Dec. 18. Since that time, the sensational rise of Seminole has carried Oklahoma's output up until it reached 717,680 barrels last week, the highest point in its history. In nine weeks, production increased 157,000 barrels in daily average. During the week just closed, a decrease of 16,640 barrels was recorded, leaving the state's output still at the high figure of 701,040 barrels, according to National Petroleum News estimate.

SEMINOLE, which was the principal factor in the recent upward swing of production, also was the cause of the past week's decline, as that field is now off about 34,000 barrels from its peak of two weeks ago. During the week just closed, it averaged 298,620 barrels a day, as compared with 315,405 barrels daily last week, a decline of 16,785 barrels. This figure includes Earlsboro, which increased its production slightly last week.

All of the decline recorded in the Seminole area occurred in Seminole proper, as the other fields making up the district either held steady or increased somewhat. At Seminole, a number of companies have been curtailing their production by taking wells off the gas-lift, and this, coupled with normal decline of older wells, has served to reduce the field's production materially. Even at its present figure, however, more than 30,000 barrels are being placed in storage daily, this being the excess of production over pipe line runs from the field.

CARTER OIL CO. officials estimate that their company's production would be 60,000 barrels a day at present if all wells were pushed to capacity, but its actual production yesterday was 32,950 barrels. This compares with 52,000 barrels one day as the company's peak production. The reduction was brought about solely through shutting off gas from wells that has been on gas-lift.

IF the Carter could double its production and were able to handle the oil, the field, which is now making about 292,000 barrels daily, would again be up to 320,000 barrels. In one other instance, Prairie Oil & Gas Co. had a well making nearly 11,000 barrels on gas-lift last week, but which is now down to 6000 barrels, since the gas was cut off.

Crude stroage within the field had mounted by March 4 to a total of 1,740,000 barrels with the Carter Oil Co. leading in amount tanked with 512,700 barrels. Pure Oil Co. was next with around 480,000 barrels. Total tankage room in the field as of that date was about 1,130,000 barrels.

The tank-building program under way, which received its greatest impetus Feb. 24 when operators reached an agreement that each should provide storage for one-third of his production, had attained an imposing figure by March 4. A total of 98 tanks of 55,000 and 80,000-barrel capacity were either building or had reached the stage of grades or locations made. This number included 92 of 55,000-barrel capacity and six of the 80,000-barrel size, or a total of 5,540,000 barrels of new tankage to be completed as quickly as possible.

In the accompanying table of pipe line runs out of the Seminole field, the Oklahoma Pipe Line Co. (Carter Oil Co.) is in the lead, with 45,083 barrels. Sinclair Pipe Line Co. is next with 39,460 barrels, closely followed by Prairie Pipe Line Co., with 37,239 barrels. The total runs are about 44,000 barrels less than the field's production. Of this, about 32,000 barrels went into storage, the remainder being in lease tanks.

Pipe Line Runs, Seminole March 4

Company	P. L. Runs
Barnsdall	17,724
Consolidated	2,194
Cosden	8,644
Empire	7,970
Gulf	21,828
Independent	8,658
Magnolia	27,162
Oklahoma	45,083
Prairie	37,239
Shaffer	5,681
Sinclair	39,460
Texas	12,724
Tidal	4,260
Earlsboro field	3,000
Total	248,516 bbls.

WHILE Seminole was dropping off rapidly in production the past week, some companies were increasing their production by drilling in new wells. The most notable instance of this was the Turman Oil Co., which now has four wells producing 10,929 barrels daily, as compared with 4199 barrels a week ago. This company's

Drilling Operations in Oklahoma, Kansas and Texas

	Week Ended Mar. 5					Week Ended Feb. 26				
OKLAHOMA	Loc.	Rigs	Drg.	S.D.	Total	Loc.	Rigs	Drg.	S.D.	Total
Burbank	8	9	27	...	44	7	12	27	...	46
Other Osage	13	22	29	5	69	18	17	32	3	70
Bristow-Cushing	14	13	88	9	124	11	14	92	10	127
North Oklahoma	7	16	111	37	171	8	18	110	36	172
South Oklahoma	21	14	215	32	282	22	22	211	42	253
Muskogee	..	14	33	17	64	...	13	35	18	66
Okmulgee-Bristow	6	61	126	26	219	4	57	127	26	214
Tonkawa	1	1	2	4	8	1	1	1	4	7
Seminole Dist.	39	98	439	36	612	40	118	425	29	612
Total Oklahoma	109	248	1070	166	1593	111	273	1060	159	1603
KANSAS	72	80	72	230	454	72	81	78	228	459
TEXAS										
C-F Texas	..	181	320	132	633	...	188	309	158	655
Panhandle	..	190	301	54	545	...	213	272	70	555
N-C Texas	..	67	93	33	193	...	56	70	53	179
West Texas	..	136	201	45	382	...	114	163	44	321
Total Texas	..	574	915	264	1753	...	571	814	325	1710
GRAND TOTAL	181	902	2057	660	3800	183	925	1952	712	3772

Completions in C.-E., Panhandle, N.-C. & W. Texas, Week Ending Mar. 5

CENTRAL—EAST TEXAS

Brown County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Humble	7-Armstrong	Delgado	1201–1216	204
Humble	5-Hodnott	Harris	1185–1202	20
Phillips	3-Hickman	Benson	1241–1266	400
Mid-West	6-Prater	Travis	1303–1328	8
Pandem	11-Westerman	Mitchell	1249–1276	50
Canyon	1-Ellsberry	Williams	1388–1405	5
Canyon	3-Ellsberry	Williams	1430–1440	10
Canyon	5-Ellsberry	Williams	1404–1423	30
Gillespie et al	1-Newton	Swain	1292–1310	7
Mid West	19-Suttles	Mitchell	1152–1164	20
Barbara	1-Metz	Marrs	1325–1330	125
Barbara	2-Metz	Marrs	1314–1322	225
Humble	1-Metz	Morris	1320–1320	60
Amerada	19-Fry	Stubblefield	1219–1319	626
Rex-Pyramid	11-Fry	Stubblefield	1281–1294	825
Sinclair	7-Fry	Stubble	1291–1304	738
Sinclair	12-Fry	Stubble	1283–1300	800
Sinclair	15-Fry	Stubble	1280–1302	800
Texas	11-Lowe	Stubble	1280–1298	338
Texas	13-Lowe	Stubble	1272–1286	390
Texas	23-Lowe	Stubble	1242–1247	675
Texas	19-Lowe	Stubble	1254–1276	650
Humble	12-Hodnott	Harris	T.D.1250	Dry
Canyon	2-Ellsberry	Williams	T.D.2953	Dry
Canyon	4-Ellsberry	Williams	T.D.1438	Dry
Phillips	6-Prater	Swain	T.D.1225	Dry
Bowden et al	1-Williams	Pruitt	T.D.1280	Dry
Humble	11-Wooldridge	ET	T.D.1310	Dry
Humphreys	7-Newton	Mitchell	T.D.1219	Dry
Brown	1-Weedon	Derm	T.D.2620	Dry
Amerada	17-Fry	Stubblefield	T.D.1309	Dry
Magnolia	9-Fry	Chandoin	T.D.1400	Dry
Rex-Pyramid	6-Fry	Stubble.	T.D.2036	Dry
Patton et al	1-Weedon	Flood	T.D.1805	Dry
Faber-Warren	1-Whitley	Pratt	T.D.1392	Dry
Hurley	2-Visort	Bang	T.D.1002	Dry
Milham	1-Shafner	Mixon	T.D.1675	Dry
Chrisman	1-Brown	Derr	T.D.1725	Dry

Callahan County

Starr-Hart	1-Williams	BOAL	T.D. 635	Dry
Rinehart	1-Bell	Bates	T.D.1107	Dry

Coleman County

Moore et al	1-Andrews	Bannister	T.D.1962	Dry
Evans et al	1-Davis	Little	T.D.1441	Dry
Nelson	1-Gresecky	Adams	T.D.1512	Dry

Eastland County

Gholson	2-Duffer	Mathis	T.D.3495	300
Gholson	3-Duffer	Mathis	3470–3490	1000
Moore et al	1-Capers	H&TC	T.D.1587	Dry

Jones County

Mid West	2-Thornton	TP	2491–2506	98

Mitchell County

Magnolia	7-Adams	TP	3038–3040	60

Shackelford County

Milham	3-Moore	TEL	2132–1246	15
Humble	18-Cook	ET	1135–1148	15
Hyde et al	6-Moberly	ET	1162–1171	100
Rosier-Pendleton	39-Cook	ET	T.D.1220	960
Rosier-Pendleton	14-Cook	ET	1149–1158	40
Rosier-Pendleton	16-Cook	ET	1135–1150	40
Rosier-Pendleton	27-Cook	ET	1314–1335	34
Rosier-Pendleton	32-Cook	ET	1137–1152	35
White Eagle	1-Mathews	ET	910– 919	8
Republic	1-Myers	GH&H	1005–1020	60
Hope	6-Davis	T&P	1421–1436	70
Independent	1-Powers	TP	1463–1472	20
Knight et al	11-Moberly	TP	1295–1306	100
Rosier-Pendleton	13-Moberly	TP	1278–1283	100

PANHANDLE DISTRICT

Carson County

Texas	1-Brown	I&GN	3162–3228	25
Champlin	1-Bryan	I&GN	3176–3191	300
Magnolia	1-Fee	I&GN	3163–3182	300
Texas	1-Frashier	I&GN	3184–3196	60

Hutchinson County

Phillips	2-Cruse	H&TC	2754–2762	50
Empire	7-Johnson	H&TC	2828–2863	530
Delmar	2-Johnson	M&B	2740–2760	11M
Phillips	5-Whittenburg	H&TC	2825–2900	1200
Skelly	13-Johnson	M&V	2981–2984	40
Skelly	14-Johnson	M&C	2935–2878	216
Midwest et al	4-Smith	M&C	2794–2850	361
Triangle	5-Smith	M&C	2695–2748	400
Spurlock et al	1-Weatherly	M&C	3000–3097	75
Blk & Y	1-Smith	M&C	2925–2965	15
McIlroy	1-Cockrell	D&SE	2950–3055	750
Texas	1-Lewis	BS&F	2967–3050	30
World	2-Jackson	H&GN	2155–2156	5

NORTH-CENTRAL DISTRICT

Archer County

Company	Well Farm	Location Survey	Depth	Initial Prod.
Burns	4-Turberville	Carson	1438–1461	240
Burns	5-Turberville	Carson	1432–1463	400
Burns	7-Turberville	Carson	1433–1461	400
Roxana	1-Love	SP	1370–1374	48
Consolidated	2-Ward	TEL	1018–1023	37
Cary et al	1-Kemp		T.D.1807	Dry
Humble	1-Parish	ATNC	1537–1588	Dry
Dickie	1-Wilson	ATNC	T.D.1601	Dry
Gulf	3-Young	Harris	T.D.1500	Dry
Texas et al	1-Seals	Carson	T.D.1506	Dry
Roxana	1-Pace	Harris	T.D.1455	Dry
Minton	1-Wilson	Scott	T.D.1358	Dry
Kruger et al	2-Wolfe	Miles	T.D.1405	Dry
Roxana	1-Wolfe	Miles	T.D.1459	Dry
Roxana	2-Wolfe	Miles	T.D.1455	Dry
Gulf	1-Pastusch	Meade	T.D.1558	Dry
Continental	1-Richison	McCoy	T.D.1252	Dry

Baylor County

Howard	1-Inman	Spratt	T.D.3133	Dry

Cooke County

Magnolia	1-Johnson	Clarke	1179–1197	4M
Stroube	1-Koelzer	Scott	1272–1306	20
Sun	1-Grotte	Toby	T.D.2010	Dry
Maralarene	1-Boyer	Ivy	T.D.2230	Dry

Montague County

Gulf	3-Dennis	Votans	1106–1108	70
Gulf	4-Dennis	Votans	1373–1377	25
Humble	3-Jones	Donoho	830– 863	30
Continental	13-Maddox	Thomson	911– 933	26
Continental	14-Maddox	Thompson	892– 988	48
Continental	22-Howard	Chambliss	979– 999	16
Continental	1-Maddox	Arnold	T.D.1202	Dry
Alexander et al	1-Tolbert	Massey	T.D.3510	Dry

Wichita County

Magnolia et al	1-Beach		T.D.3502	Dry
Wallace	1-Burnett	Bradford	T.D.3258	Dry
Sun	1-Denny	Sharp	T.D.1901	Dry

Wilbarger County

Whitehead et al	1-Waggoner	H&TC	T.D.2895	Dry
Phillips	1-Waggoner	H&TC	2292–2295	103
Milham	9-Waggoner	H&TC	2547–2550	50

Young County

Cooper-Wolf	1-Hawkins	Holeman	T.D.1508	Dry

WEST TEXAS DISTRICT

Crane County

Simms-Atlantic	2-University	Univ.	2889–2935	7000
Eastland	1-University	Univ.	2775–2890	1800
Gulf	2-Univ.	Lassiter	2890–2964	1500
Magnolia	3-University	Univ.	2832–2954	350
Independent	78-Taylor	Univ.	2025–2040	65
Simms et al	1-University	Univ.	2962–2972	600

Crockett County

Republic	2-Powell	EL	2620–2671	150

Ector County

Cosden	1-Connell	PSL	3170–3465	25

Glasscock County

Marland	1-Calder	TP	3503	Dry

Howard County

Marland	11-Chalk	W&NW	1611–1625	45

Jeff Davis County

Humble	1-McCutcheon	GCSF	T.D.3420	Dry

Reagan County

Texon	69-University	Univ.	2920–2960	125
Hiawatha	1-University	Univ.	T.D.4070	Dry

Reeves County

Grisham	1-State	PSL	T.D.3508	Dry

Upton County

Humble	2-Ricker	Denton	2173–2200	125
Independent	13-Wooley	GCSF	2075–2155	500
Texas	22-Kind	GCSD	2125–2137	125
Texas	20-King	GCSD	2433–2554	857
Roxana	7-Bowen	GCSF	2105–2201	192
Sun	8-Burleson	Jones	2056–2110	150
Tex-Pac	5-Sherk	M&T	2026–2163	90
Dixie	17-Burleson	Nidiver	2004–2080	2160

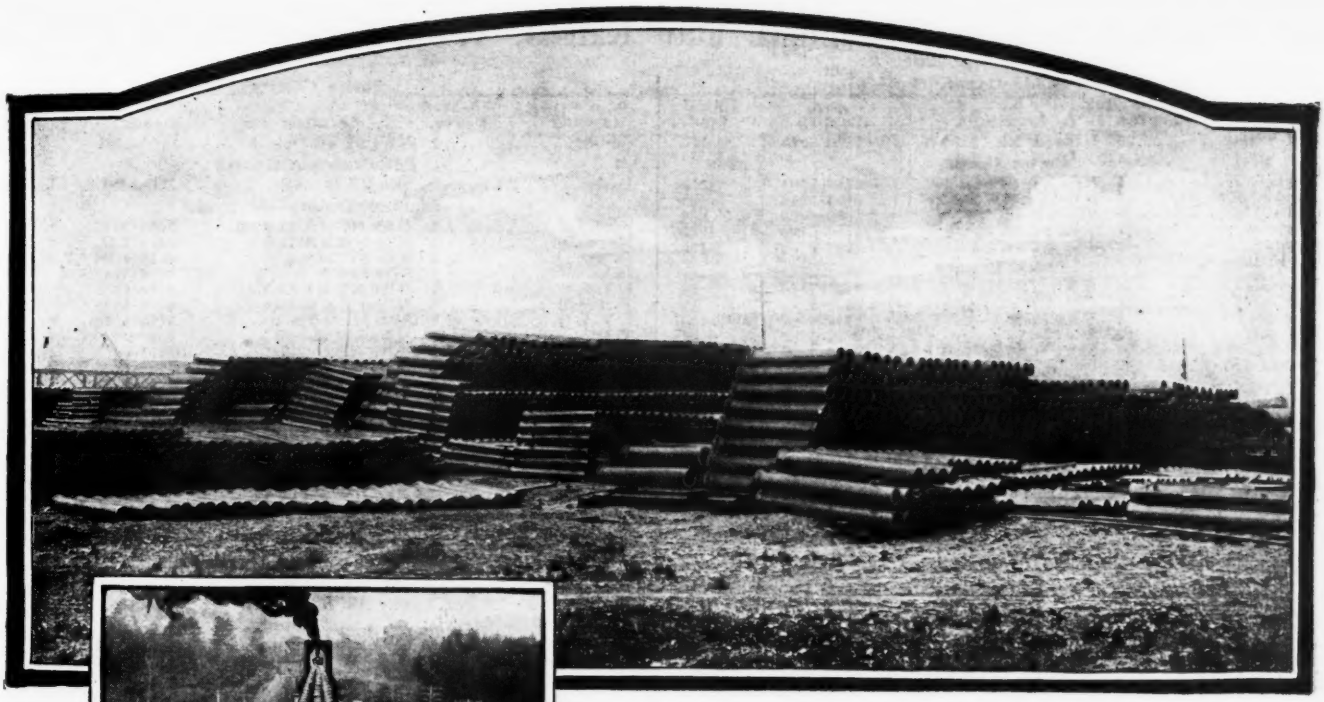
No. 3 Cudjo, in the NWc SW NW of 35-9-6, is making about 5000 barrels daily, and No. 2 on the same farm is making 1200 barrels. This company's No. 1 Grisso, on a 10-acre lease in the NEc SW NW of 35, is flowing 3700 barrels a day.

Pure Oil Co. also jumped its production by drilling in a new well, this being its No. 14 Strothers, in the NWc SW SW of 26-9-6. This well has been held up by a fishing job, but was drilled in this week, and is flowing 4050 barrels daily. The Pure's 160-acre lease now has 15 wells producing 27,044 barrels daily.

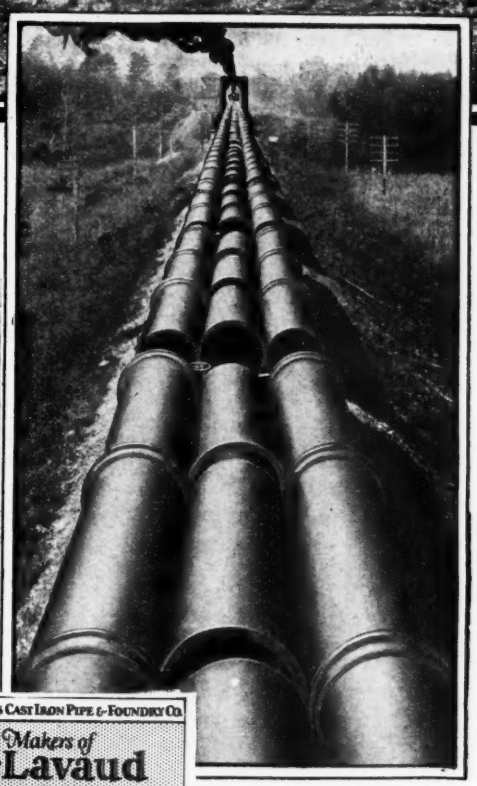
In the Searight field, Carter Oil Co. added a new producing well to its list during the week when it drilled in its No. 1 Scott, in the NWc of 26-10-6. This well, which is about two miles north and east of production, is reported to be in the Misener sand from 4307 to 4315 feet, and is swabbing 150 barrels a day. The same company's No. 1 Kiker, in the SWc NW SW of 2-9-6, also in Searight, is standardizing. It reported a showing of oil in sand from 3529 to 3534 feet.

TWIN STATE OIL CO. is still working on its No. 1 Cudjo, in the NEc SE NW of 4-9-6, Searight pool. At last reports, this well was drilling at 4406 feet in green shale and producing 120 barrels daily, from a lime pay.

Apparently the Mid-Kansas Oil &



One of our pipe storage yards



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Completions in Oklahoma and Kansas, Week Ending March 5

Caddo County

Company	Well No.	Location	Depth	Initial Prod.
Hall-Briscoe	2	NWc SE NE 10-5-9W	2120–2330	100

Carter County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	3	NEc NW SW 2-2-3W	2242–3184	125
Franklin et al	7	NWc NE NW 3-2-3W	2193–3246	15
Skelly	3	SEc NW SE 3-2-3W	1850–2206	70
Magnolia	5	NWc SE SE 16-2-2W	1340–3150	20
Humble	3	SWc 2-2-3W	2242–3184	125

Creek County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	21	C NE NE 8-18-7	1447–1514	25
Silurian	12	CEL NE SE 8-18-7	2539–2577	18
Magnolia	1	NWc 16-18-7	2477–2507 OWD	120
Phillips	3	SEc 25-15-7	3232–3240	55M
Tibbens	1	SEc SW SE 23-14-8	2419–2454	10
Roxana	2	NEc SW NE 18-19-9	2912–2922	722
Pine	1	NWc SW 17-18-14	1427–1435	3M
Elson	1	SEc NE NW 12-17-10	2420–2430	1100
Misener et al	4	NWc NE NW NW 16-17-11	2646–2666	30
Tibbens	1	SWc 20-15-9	2677–2707	2¼M
Donnelly et al	2	SWc NW SE 20-14-10	2792–2802	240
Transcontinental	2	NWc NE NE 20-17-8	T.D.3576	Dry
Peters	3	NEc SW NW 22-16-8	T.D.3702	Dry
Selby	1	NEc 28-18-11	T.D.2304	Dry
Tibbens	9	NEc SE NW 9-18-12	T.D.2221	Dry
Tex-Pac	2	SWc NE SW 22-17-9	T.D.2542	Dry

Garfield County

Company	Well No.	Location	Depth	Initial Prod.
Sinclair	54	SWc SE NW NW 18-22-3W	T.D.2280	Dry

Grady County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	1	NEc NW NE 35-5-8W	1735–1739 OWD	5M
Meridian	2	NEc SW 11-4-8W	2115–2448	3¼M
Gypsy	2	NEc NW SW 16-3-5W	1802–1810	100
Hamon-Cox	2	SWc NW NW 16-3-5	1828–1841	5
Carter	1	NEc SE SE 21-3-5	1667–1675	100
Clark-Cowden	1	SWc NE NW 27-3-5	1708–1722	75
Carter	7	NEc SE NE 34-3-5	1437–1452	100
Magnolia	2	NWc NE NW 34-3-5	2524–2558	75
Carter	4	SWc NW SW 35-3-5	1530–1544	200

Hughes County

Company	Well No.	Location	Depth	Initial Prod.
Indep. et al	4	SEc NE NW 1-9-9E	T.D.3920 OWD	Dry
Prairie	1	SWc SE NE 1-1-8E	T.D.4488	Dry

Jefferson County

Company	Well No.	Location	Depth	Initial Prod.
Woodruff	1	NWc NE 5-7-5W	T.D.1435	Dry

Kay County

Company	Well No.	Location	Depth	Initial Prod.
Mid-Cont	5	SWc SE SW SW 16-29-1W	3398–3430	430
Comar	14	SEc NW NW 21-29-1W	2075–2094	168
Wentz	1	NWc NE 8-28-1W	T.D.3473 OWD	1071
Prairie	9	SWc SE SE 1-26-2W	T.D.3645	125
Harris et al	4	SEc NW SE NE 8-27-1W	875– 876	1M

Muskogee County

Company	Well No.	Location	Depth	Initial Prod.
Whaley-Lang	2	NWc SE 20-15-18E	T.D.1475	Dry
Culp et al	7	NEc SE 30-15-15	T.D.1590 OWD	Dry

Okfuskee County

Company	Well No.	Location	Depth	Initial Prod.
Champlin	2	NEc SE NE 22-11-11	T.D.3587	Dry
Carter	15	C NW NE 25-11-11	T.D.3555 OWD	Dry
Rebold	2	NWc SW 28-13-11	T.D.3220	Dry
P & R	1	CEL NE NW 32-13-11	T.D.3419	Dry

Okmulgee County

Company	Well No.	Location	Depth	Initial Prod.
Le Bean et al	4	C SE NE 22-15-11	2105–2132	15
Red Bank	1	SWc NE SE 3-15-12	2074–2085	10M
McCulloch	6	CWL SE SW 16-15-14	2355–2360	60
Lampert	4	C SW SE 27-14-14	1728–1742	5
Pine	1	NEc SE NE 4-11-13	1999–2004	1½M
Gardner-Pine	1	NEc SE SW 14-14-13	1935–1944	5M
McMahon	7	C SW SE 9-15-12	T.D.2744	Dry
Sidwell	2	NWc SW SW 4-14-11	T.D.3032	Dry
White Eagle	1	SEc NE NE 18-14-12	T.D.2801	Dry
King-Kyle	1	SEc NE 20-14-13	T.D.2736	Dry

Osage County—Burbank

Company	Well No.	Location	Depth	Initial Prod.
Kewanee	4	NEc NW NW 34-27-6E	2877–2958	900
Kewanee	5	NWc NE NW 34-27-6	2898–2938	2000

Osage County

Company	Well No.	Location	Depth	Initial Prod.
I. T. I. O.	358	NWc SW 27-25-8	635– 656	8M
Texas	19	NWc SW NE 30-25-8E	2385–2430	35
Edgington et al	7	NWc NE NW 3-22-9	1020–1047	18
Mid-Kans	3	SWc NE SE 10-21-10	2338–2390	30
Osage Oil	9	SEc NW NW 7-21-9	T.D. 621	Dry
Commercial	1	NWc NE SE 21-21-12	T.D.1535	Dry
Gled et al	1	NEc SE 32-20-10	T.D.2820	Dry

Pawnee County

Company	Well No.	Location	Depth	Initial Prod.
Magnolia	3	NWc SE SE 32-20-5	2790–2810	40

Payne County

Company	Well No.	Location	Depth	Initial Prod.
Cushing	1	NWc SE SE 31-18-4	3562–3582	9M

Pottawatomie County

Company	Well No.	Location	Depth	Initial Prod.
Darby	1	SEc NE 15-7-4E	T.D.3652	57

Seminole County—Seminole

Company	Well No.	Location	Depth	Initial Prod.
Barnsdall	1	NWc NE SW 11-9-5E	3496–3516	349
Magnolia	3	NEc NW SW 11-9-5	3514-T.D.	850
Carter	3	NEc SW 23-9-6	4110–4132	245
Indep.	1	SWc 23-9-6	4269–4287	819
I. T. I. O.	4	NWc NE NE 23-9-6	4162–4182	695
Barnsdall	8	NEc SW NW 24-9-6	4131–4186	4321
I. T. I. O.	6	SWc SE 24-9-6	4170–4186	40
Tidal	3	NWc SW 24-9-6	4052–4139	210
Mid-Kans	1	NWc NE 25-9-6	4162–4203	250
Gypsy	3	NWc NE 26-9-6	4202–4205	65
Gypsy	5	SWc NW 26-9-6	4065–4098	4520
I. T. I. O.	8	NWc SE SE 26-9-6	3950–3980	780
Pure	9	NWc SE SW 26-9-6	4075–4112	1241
Pure	13	SWc NW SW 26-9-6	3972–4020	3395
Southwestern	5	SWc NE SE 18-9-8	3268–3289	65
Prairie	4	NWc SW NW 25-9-6	4315–4320	250
Prairie	5	NEc SE SE 27-9-6	4069–4082	550
Carter	4	NEc NW SW 34-10-6	T.D.4348	Dry
Prairie	3	NWc S½ NW 34-10-6	T.D.2089	Dry

Stephens County

Company	Well No.	Location	Depth	Initial Prod.
Big 12	1	NEc NW NE SE 34-1-8W	1750–1758	15
Skelly	28	SEc 26-1-5W	T.D.4150	Dry
Homaokla	1	SWc NE NE 29-2-7W	T.D.2035	Dry
Magnolia	1	SEc NW SE 25-1-6W	T.D.1842	Dry

Tulsa County

Company	Well No.	Location	Depth	Initial Prod.
Holmes et al	6	SWc NE 22-19-10	1974–2001	50
McCullough	1	NEc NW NW NE 18-17-13	1715–1760	10
Cornelius	1	NEc SW NW 11-19-13	T.D.2641	Dry

Wagoner County

Company	Well No.	Location	Depth	Initial Prod.
Johnson	1	NEc NW NW 14-16-16	783– 787	7½M

KANSAS

Barber County

Company	Well No.	Location	Depth	Initial Prod.
Shaffer O & R	1	C SE 13-33-13W	4440–4447	5M

Butler County

Company	Well No.	Location	Depth	Initial Prod.
Barnsdall	1	NEc NW SW 20-26-3E	2859–2860	150

Chase County

Company	Well No.	Location	Depth	Initial Prod.
Empire	7	C NW NW 29-18-7	T.D.1131	Dry

Cowley County

Company	Well No.	Location	Depth	Initial Prod.
Forrester et al	1	NWc NE 4-33-7	2419–2424	75
Pyle et al	1	SWc NE 30-30-3	T.D.3604	Dry
Sinclair	1	SWc NE NE 6-31-3	T.D.3655	Dry
Empire	1	NEc NW SE 13-31-7	T.D.2885	Dry

Elk County

Company	Well No.	Location	Depth	Initial Prod.
Page	1	NWc 10-31-8	T.D.2702	Dry
Ark. Fuel	1	CWL E½ W½ 17-29-10	1300–1312	3M
Smith et al	1	NWc NE 16-31-9	2260–2284	30

Greenwood County

Company	Well No.	Location	Depth	Initial Prod.
Empire	10	SWc NE SW 14-22-11	1897–1909	100
Gore-Skelly	2	NEc SE NE SW 4-23-13	1771–1781	10
Schwartz et al	1	SWc 13-22-12	2260	Dry
Skelly	2	SWc NW NE 32-22-13	T.D.1770	Dry
Leonard et al	1	NEc SW 8-23-10	T.D.2489	Dry
Mathews et al	1	SWc SE 8-23-12	T.D.1975	Dry
Mid-Kans	1	NWc SW NE 6-23-13	T.D.2186	Dry
Brown-Emerson	1	SWc 16-26-11	T.D.1905	Dry
Marshall et al	1	NEc SW NE 25-27-10	T.D.2110 OWD	Dry
McCullough et al	1	NWc 2-28-11	T.D.2243	Dry

Lyon County

Company	Well No.	Location	Depth	Initial Prod.
Ritchey-Moore	2	SEc SW NE 25-21-10	2205–2256	25
Theta	8	SEc NW NW 30-21-10	2242–2295	10

Marion County

Company	Well No.	Location	Depth	Initial Prod.
Frenk et al	1	SWc NW 22-17-4	2372–2396	25

Reno County

Company	Well No.	Location	Depth	Initial Prod.
Hartman et al	1	C SW 24-24-8W	3545–3549	150

Russell County

Company	Well No.	Location	Depth	Initial Prod.
Derby et al	5	SEc SW NW 32-11-15W	2883–2892	125
Krueger et al	1	NWc SE SE 13-11-13W	T.D.3615	Dry

Sumner County

Company	Well No.	Location	Depth	Initial Prod.
Champlin	1	SEc SW 9-30-1W	T.D.3572	Dry
Philmac	1	NWc 30-30-2	T.D.3710	Dry
Derby	1	NEc NW SW 25-31-2	1817–1892	960

Woodson County

Company	Well No.	Location	Depth	Initial Prod.
Skelly	2	CWL NE SW 13-26-14E	T.D.1398	Dry

Gas Co. is destined to get the first completion in the Lima pool, in township 8-6, where the two I. T. I. O. Co. wells have reigned supreme for 60 days. The Mid-Kansas well, its No. 1 Presley, in the NEc SE NE of 3-8-6, has 3500 feet of oil in the hole in sand topped at 4063 feet. It is now running the 6-inch casing to drill in. This well will prove an extension of Seminole rather than a part of the Lima pool, as it is only three-quarters of a mile south of Seminole production and two and a quarter miles north of Lima production.

The Texas Company joined the list of Seminole producers for the first time when it drilled in its No. 1 Mayhue, in the SEc SW NE of 14-9-6, in the extreme north side of the field. This well, which is north and slightly east of the Mid-Continent's dry hole on the Rentie farm, is producing 115 barrels a day from the Hunton lime, and is now drilling ahead in the Sylvan shale at 4120 feet.

Phillips Petroleum Co. is also getting its first Seminole production in its No. 1 Strothers, in the SEc SW SE of 27-9-6, a west offset to the rich Strothers lease of the Prairie Oil & Gas Co. The Phillips well, which produced 90 barrels in the last 24 hours, has 3000 feet of oil in the hole in the Wilcox sand from 3990 to 3992 feet.

KANSAS CITY, March 7.—Railroads in Missouri are proposing to increase rates on less than car load lots of lubricating oils and grease. The increase would be 100 to 120 per cent in most cases. The Missouri Oil Men's Association has retained A. T. Sindel as traffic counsel to oppose the increases. A hearing is to be asked before the public Service Commission.

Experience

You who have had years of experience in manufacturing realize how experience is reflected in the product. Therefore you can appreciate the value of the experience of Prest-O-Lite in making dissolved acetylene for 22 years.

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Unit of Union Carbide and Carbon Corporation
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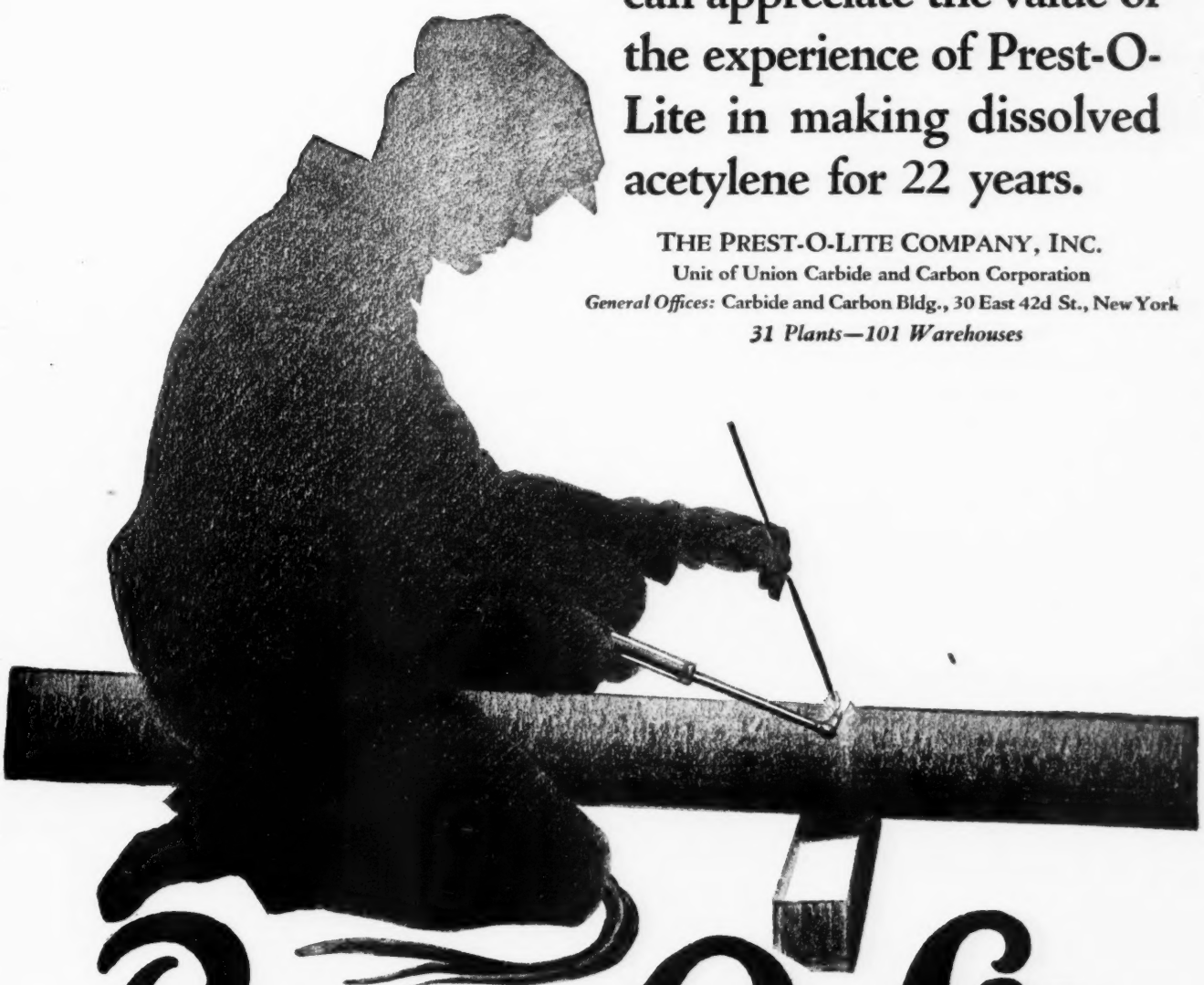
31 Plants—101 Warehouses



Prest-O-Lite
DISSOLVED ACETYLENE

Mexico's Golden Lane Extended Southeast Into San Isidro

By Paul Wagner
N. P. N. Staff Writer

HOUSTON, March 5

PENN-MEX FUEL CO., drilling on Mexican Sinclair acreage in the San Isidro district, southeast of Alamo production, has made the first wildcat discovery completion in the south country of Mexico in years. The discovery well, No. 6-A, which came in for 5000 barrels initial production at 2594 feet, is about midway of the Northwest boundary line between the San Isidro and Paso Real haciendas.

Nearest production is about 10 kilometers northwest (a kilometer is five-eighths of a mile) in the Alamo-Jardin development controlled by Penn-Mex Fuel Co. The last mentioned development had been previously the farthest south field along the faulted-fold which extends from San Geronimo southwesterly across the Tuxpam river, forming the arc of a circle which has become famous in Mexico's petroleum history as the "Golden Lane."

An accompanying sketch map shows the relation of San Isidro to the Alamo-Jardin pool, which up to Jan. 1, 1927 had produced a total of 43,171,951 barrels; the seven wells remaining on production in the field giving up at that time 5,892 barrels, daily average for December.

The single producing well in Molino, which may be mentioned because of its unusual location with reference to other fields along the faulted-fold, is no longer productive; but it gave up 214,432 barrels of crude in its life.

That the San Isidro discovery ranks in importance more nearly with Alamo than other fields along the faulted-fold is indicated by its initial production and its location with reference to larger fields along the "Golden Lane." Their total production down to Jan. 1, is given in the following table:

Field	Total Bbls.
San Geronimo-Chiconcillo	6,612,876
Tepetate-Casiano	120,022,962
Southern Chinampa & Los Naranjos	181,825,834
Southern Amatlan	73,464,278
Zacamixtle	12,287,459
Toteco—Upper Cerro Azul	150,133,568
Cerro Azul Proper	89,189,634
Potrero del Llano, Alazan and Cerro Viejo	118,078,863
Tanhuijo-San Sebastian	854,171
Tierra Blanca-Chapapote Nunez	62,679,771
Alamo-Jardin	43,171,951

Three earlier tests drilled by the Mexican Sinclair interests in San Isidro had been all failures. One was drilled about 1000 meters northeast of the discovery well and the two others were about 3000 meters due north of it.

A baffling point in connection with the San Isidro discovery is its depth of 2594 feet as compared with an average of 2000 feet in fields farther north along the faulted-fold. The surface elevation of 193 feet at San Isidro is lower than elsewhere in the producing territory of the south country, which fact also throws the producing horizon lower in the sub-surface. The pay horizon, however, is identified as the Tamasopa limestone, from which wells in other south country fields produce.

Sketch map showing relation of San Isidro to developed fields in South Country of Mexico

Nearest pipe line facilities to the San Isidro well are at Alamo, about 4500 meters away.

Although the find is not large enough to bring about a rejuvenation of big scale operations in the south country, nor is its significance such as to stimulate that kind of interest, San Isidro promises important development for the Penn-Mex and Sinclair companies who control the area between them.

Hager Still Lives

DORSEY HAGER, the petroleum geologist, wishes to assure National Petroleum News readers that he is no longer dead, nor has he experienced reincarnation. National Petroleum News apologizes for prematurely consigning Mr. Hager to eternity in a note about the recent publication of the fourth edition of his book "Practical Oil Geology."

Two of Mr. Hager's former associates, Mowrey Bates and Prof. James F. Kemp, in the firm of Hager, Bates & Kemp, died last November and Mr. Hager was inadvertently referred to in our Feb. 16 issue as the "late Dorsey Hager." Mr. Hager has offices in Great Falls, Mont., La Junta, Colo., and Seattle.

McElroy and University Oil to Get Outlets

HOUSTON, March 4.—Four companies are going ahead with plans for pipeline facilities that will provide northeastern Crane county with outlets for 75,000 barrels of crude oil daily in the near future.

One line capable of handling 20,000 barrels daily is already in operation, connecting the Gulf Production Co.'s properties in the McElroy ranch and University pools with tank car loading racks at Midland, on the Texas & Pacific railroad, 47 miles northeast.

Magnolia Petroleum Co., another principal operator in the University (Church & Fields) pool, is laying a 6-inch pipeline to the Texas & Pacific at a point about one mile west of Odessa, in Ector county.

Humble Pipeline Co., whose gathering system had been the only outlet from the McElroy ranch and University pools prior to the Gulf's newly completed pipeline, is surveying for 8-inch construction north from its McCamey tank farm, in the Hurdle district, of southwestern Upton county.

Southern Crude Oil Purchasing Co., arm of the Pan American group, also contemplates an 8-inch pipeline from McCamey to the University pool, having contracted with the Simms-Atlantic partnership and the Tidal Oil Co., for production.

Southern Crude purchases and gathers oil in the Hurdle district, where it also handles production of the Dixie Oil Co., Inc., direct subsidiary of Standard Oil Co., of Indiana, in Texas-Louisiana producing territory. Southern Crude and the affiliated Southern Pipeline Co. are identified with Standard of Indiana through its connection with the Pan American group companies.

Humble Pipeline Co. is the only one of the several interests mentioned who have trunk pipeline outlets from the territory west of San Angelo. Other purchasing outfits move out their crude in tank car shipments from concentration bases such as McCamey, Midland and Odessa.

ST. LOUIS, MO.—Torch Oil Co., oil jobber here, has moved from the Arcade Bldg., to 1101 Louderman Bldg., 11th and Locust Sts.

Country Gallonage Less Profitable With Latest Q. D. A. Schedule

By Ward K. Halbert
N. P. N. Staff Writer

AURORA, ILL., Mar. 5

UNDER the new quantity-fill price schedule of the Standard Oil Co. of Indiana, rural business is less desirable to the Independent jobber. Companies which have built up country business on a substantial basis will be able to carry it on profitably, but an aggressive campaign for gallonage on long-haul country routes can easily run into losses.

D. D. Raymond, general manager of the United Service Stations Co. of Aurora, says his company's operations in the Fox River valley do not contemplate service to the farmer at all. The company is a partnership of four local men and is just starting operations, but Mr. Raymond's business policy is based on experience over several years as a sales representative of the Standard Oil Co. and district manager for Roxana Petroleum Corp.

"Today's price schedule places the farmer, with a 50-gallon drum in his barn lot, on a par with a garageman who sells 3000 gallons a month," Mr. Raymond said. "There is no comparison in the trouble and expense necessary to serve the two customers. We will not handle any kerosene because we are not going out after rural business."

Mr. Raymond says the small re-selling agent is the best trade the Independent jobber can have now, because such a customer (operating on a 3-cent spread) buys gasoline from the jobber at only 1 cent below the tank wagon price, even though he accepts a full tank truck load at a dump. But Standard Oil Co. of Indiana Jan. 19 began selling farmers at one cent below tank wagon, bucketing 50 gallons from the truck to a barrel, in accordance with the policy of abolishing the first three brackets of the wholesale Q. D. A. and instituting a one-cent cut on every delivery of 50 gallons or more.

"Many a tank wagon driver on a country route goes out early in the morning and works hard all day delivering 300 gallons of gasoline and kerosene," Mr. Raymond said. "If the route is well populated and the roads are good, he does well to dispose of 600 gallons. Figuring 25 working days a month when a country truck can travel, it does well to deliver 15,000 gallons a month.

"On the other hand, a big truck, calling on regular trade, dumping through hose, never getting off the paving, or wandering far from the bulk plant, can easily move 50,000 gallons a month. And I don't believe any country truck ever came near that figure, not even here in the Fox River valley where roads are better than the average and where farmhouses are close together."

THE truck that makes the country route is smaller than the one that rolls on city streets, but Mr. Raymond believes nevertheless, that it is more costly to operate. The country truck's repair bill is heavier because of its hard duties. He thinks the small country truck costs nearly as much per mile traveled as the big truck in urban service, to say nothing of the cost per gallon delivered.

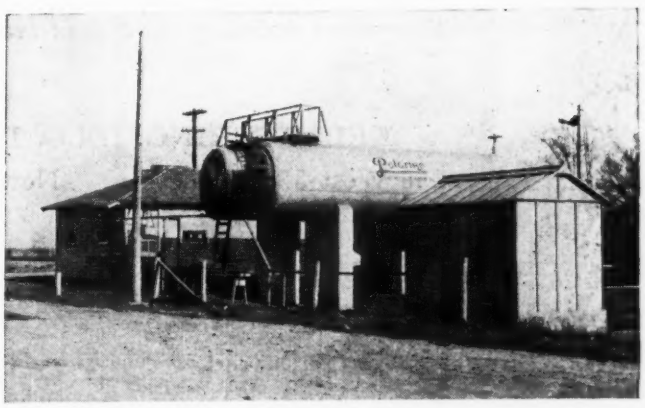
"After all it is not the depreciation on machinery that makes the cost mount up," Mr. Raymond said. "It is the driver's wages. A driver for a small truck costs as much as for a big one. If any difference must be made the country driver might be paid more for several reasons. He has to be his own mechanic and repair man on the road sometimes; he has to be somewhat of a salesman to push his merchandise to the farmers; if he has any personality he controls a certain amount of business, and his hours are long and irregular.

"EVEN if we do have to give a pump and tank to a garage sometimes, it is worth it. You can get a pump laid down for $150; a 1000 gallon tank costs about $65; pipe and fittings will cost $20 and installation work about $50. Let the entire rental equipment run up to $300 if the customer is good for 3000 gallons a month. On a spread of 7 cents between the delivered tank car price and the filling station price, the dealer gets 3 cents, and the jobber 4 cents. Such a dealer brings in $120 a month. The equipment is charged off in three months, and you still own it. It is an asset, and it helps you control your outlets. It would be a profitable investment if the dealer did only 1500 gallons.

"The farmer, on the other hand, cannot be controlled. He calls by telephone and wants special delivery, in a hurry, 15 miles out. It is an unprofitable run but the oil truck must make it or the customer is lost forever.

"In order to keep friendly with the farmers, for their trade's sake, your tank truck driver is obliged to 'chew the rag' with them, a few minutes here and a few minutes yonder, mounting into an aggregate of unprofitable hours while your truck stands idle at the gate. Farm credits, while worse than usual right now, are always bad enough, not because there is great danger of loss, but because the average farmer is not a business man. He pays when he has the money

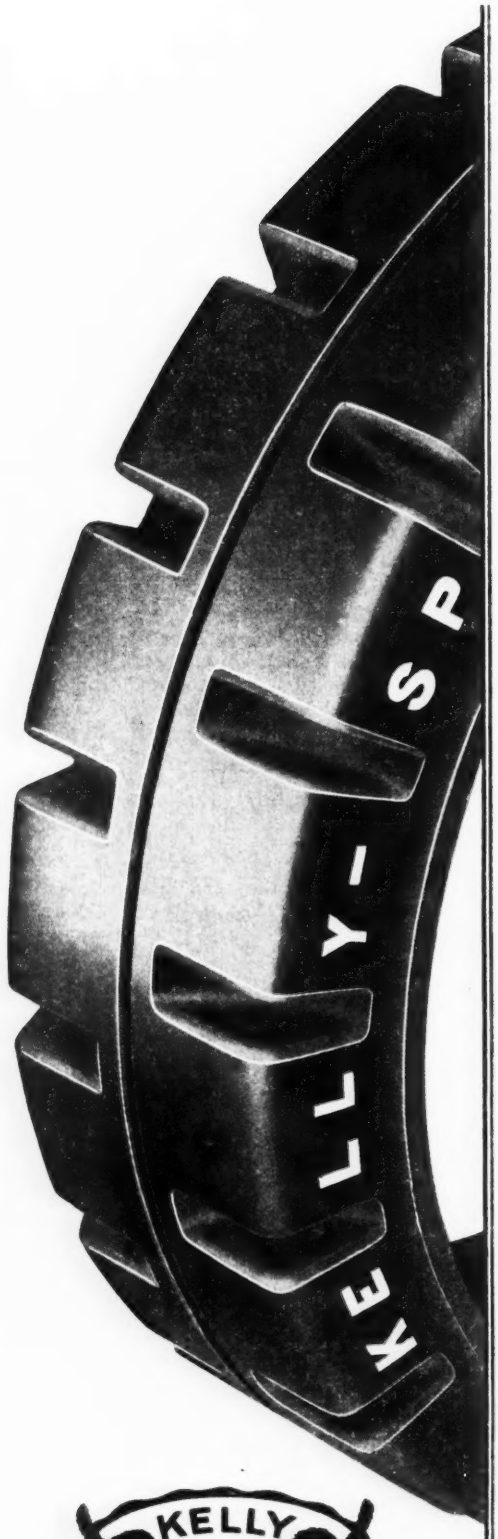
Old Stills for Storage Tanks



Old pressure stills from the Whiting refinery of the Standard Oil Co. of Indiana are used by the company for gasoline storage at bulk plants within a radius of the refinery where the old stills can be shipped without the freight making them cost more than new tanks. The shells vary from one to over 3 inches thick and freight is costly.

Other uses for old stills is as storage for special oils, water, chemical supplies and so on about the refinery property. The plant shown is near Crown Point, Ind.

Spring rains won't stop Kelly Kat tires



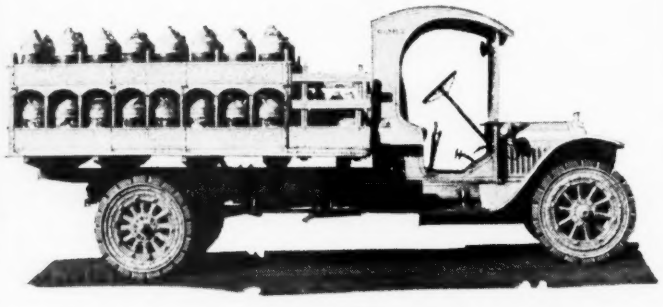
When even the best roads are wet and slippery and bad roads are terrible, Kelly Kat tires keep right on going without loss of time. Kelly Kats are so made that they take hold of any road surface and carry the truck forward without danger of slipping or sliding on pavements or sticking in mud.

The tremendous ground-gripping power that Kelly Kats have is given to them by the correctly designed side vents. Kelly originated and perfected the side-vent construction and the present design is the result of many years of experience with this type of tire.

Truck owners in all kinds of work in all parts of the United States have learned from experience that Kelly Kats can be relied upon to keep their trucks working steadily in all kinds of weather on any kind of road.

Not only do Kelly Kats save money by cutting down delays, but they also economize for their owners by cutting down tire costs. This double economy makes truck operating much less expensive and much more likely to be profitable than when ordinary solid tires are used.

KELLY-SPRINGFIELD TIRE CO.
250 West 57th Street New York, N. Y.



Trucks that must travel in all sorts of weather regardless of road conditions can do their work more economically and quicker if they are equipped with Kelly Kats.

KELLY KATS
TRADE MARK REG.
THE TIRES WITH NINE LIVES

or when the notion strikes him. Much money has to be carried on the oil man's books."

United Service Stations Co. is not now actually in the oil jobbing business. They have three stations operating on a Q. D. A. arrangement with Roxana. The plan is to have eight filling stations in the chain before July 1 and do business in Du Page, Kane and Kendall counties. They are starting out with two 3-ton tank trucks carrying 1000-gallon tanks, never to drive off the paving.

"We have started this business with the idea of getting along on as few departments, as small a personnel, and as low an expense as possible," Mr. Raymond said. "We picked a make of truck that has a service station in town. We want someone else to bother about our truck troubles.

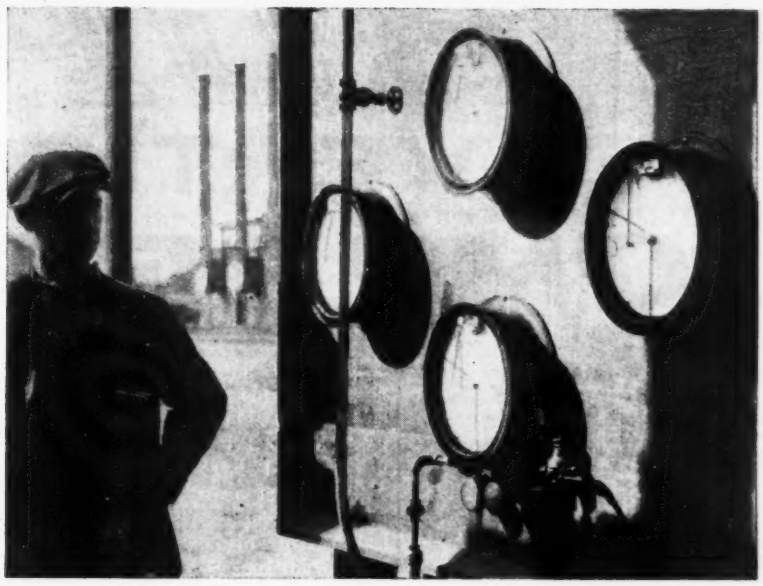
"For the same reason, we had Leader Iron Works build our bulk station. They offered, not simply to sell us tanks but to install them. We showed them our bulk plant site and told them how much money we had to spend. Then we forgot about it until the first tank car of gasoline was spotted on the side track. We are oil marketers, not construction engineers."

United Service Stations was only recently incorporated with W. A. Richardson, formerly identified with Armour & Co., as president and treasurer; F. A. Riddle, a local realtor and sub-divider, vice president and secretary, and "Don" Raymond, general manager. The company was unusually fortunate in procuring its bulk station site. The old plant of the Commercial Acetylene Co., idle for two years, was taken over.

The building, though neglected and ragged looking, is of steel, concrete and brick construction with solid concrete floors. Heavy steel and concrete platforms front the railroad siding and the driveway on an adjacent side—made purposely to unload box cars and load stake trucks with drums conveniently. One large room of the warehouse is ceilinged with insulating cork, four inches thick.

In the lot, near the warehouse, are the unused vats for carbide residue. These make ideal dikes in which the tanks have been erected, complying with the Illinois law regarding diked gasoline storage. There are enough of these expensive concrete vats to allow for a great deal of expansion in storage. It is much more expensive and better than the law requires, although bought for much less than its original cost.

BUFFALO, N. Y., Mar. 5.—N. V. Joyce, general manager of the central department of the Swan-Finch Oil Corp., New York, has been elected vice president of the corporation. The central department has its headquarters at Buffalo.



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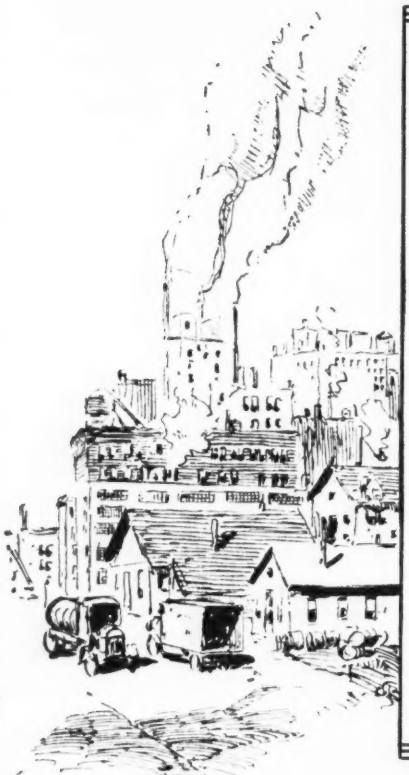
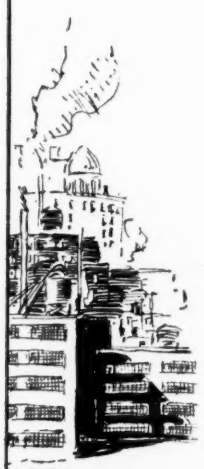


The records being made by the Hope Vertical are a triumph of performance over prejudice. No argument from theory or precedent can outweigh concrete facts as revealed by day-after-day operating figures. Experience is demonstrating, more and more emphatically, the superior economy of the Hope Vertical—the outgrowth of more than 20 years of specialized concentration on the problems of the natural gas industry.

Let us send you the specifications.



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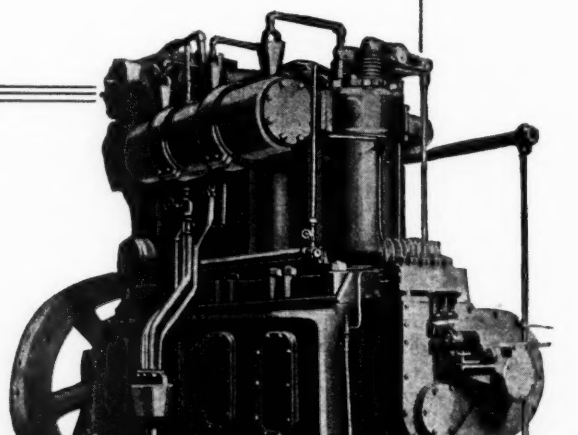

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Cimarron County Wildcat in Region Of Well Defined Structures

By Lawrence E. Smith
N. P. N. Staff Writer

TULSA, March 5

A WIDESPREAD leasing play throughout Cimarron county and extending into adjacent parts of the Oklahoma Panhandle has followed the discovery of oil several weeks ago by Ramsey Brothers, of Oklahoma City.

The huge acreage held by the discoverers compelled other operators to keep back a considerable distance from the well in their leasing, but the strike has indicated possibilities throughout the territory, including adjacent parts of Texas, Colorado and New Mexico.

The well, known as Ramsey & Ramsey No. 1 State, has now been deepened to 4121 feet without improving it. There is about 2000 feet of oil in the hole and it probably is good for about 50 barrels daily.

Although a number of dry holes have been drilled in this general region, none have been near enough to the Ramsey well to afford much information on the area of the discovery. Nearest production of any kind is the gas found by the Home Development Co., a local company, in Texas county which is just east of Cimarron, the latter being the farthest west of Oklahoma counties.

The Home Development Co.'s well found 25 to 30 million feet of wet gas at 3040 feet. The well was completed late in 1922 and was never utilized. Its location is northwest of the southwest of 4-1N-12E and is better than 20 miles south and 40 miles east of the Ramsey well. The production in this Texas county well appears to have come from the Pennsylvanian.

Geological work in the region has established the existence of good structures. Right now with the interest that is displayed in the territory, the work of E. P. Rothrock, Bulletin 34 of the Oklahoma Geological Survey, is in considerable demand. Some excerpts from the portion dealing with structure follow:

"The formations of this region have suffered little folding since their deposition, but nevertheless the same forces which developed the Rocky Mountains made themselves felt here, tilting the beds and developing relatively small arches and troughs. These structures are only visible in areas where formations older than the Late Tertiary outcrop, namely in the basin of Cimarron River and in the small patches on Beaver River and its tributaries. . . . . .

"The general dip of all formations is toward the east, the beds pitching at about the same rate as the surface of the plains (18 to 20 feet to the mile). On this dip, there are imposed a series of undulations. The exact nature of these folds could not be determined, because of the lack of accurate elevations. So far as could be determined, they are roughly parallel to the direction of the Rocky Mountains, running in a north-south direction across the county. . . . . .

"The largest of these structures in

Log of the Ramsey Wildcat in Cimarron County, Oklahoma
(Location, northwest, northeast 27-5-5E)

Casing Record

Size		Ft.	In.
20"	90#	306	
15½"	70#	835	
12½"	50#	1435	5
10"	45#	2094	9
8¼"	32# Smls.	2897	
6⅝"	24# Smls.	3416	5
5 3/16"	20# Smls.	3983	8

Drilled with cable tools by O. P. Stover Drilling Co. Elevation above sea-level at top of casing: 3943 feet.

Formation Record

Formations	Feet Top	Bottom
Soft brown dirt	0	18
Hard red rock	18	30
Red Rock	30	95
Sand	95	110
Lime	110	119
Red rock	119	125
Lime	125	129
Red rock	129	180
Sandy lime	180	195
Sand	195	217
Hard lime	217	230
Red rock	230	240
Sand red	240	270
Sand	270	305
Lime	305	306
Sandy lime	306	316
Sand	316	345
Lime	345	349
Red rock	349	362
Sandy lime	362	380
Sand	380	414
Lime, hard	414	460
Sand red	460	490
Sand	490	535
Sandy lime	535	575
Lime, hard	575	592
Red rock	592	685
Water sand	685	705
Red rock	705	712
Sandy lime	712	717
Sand	717	725
Red rock	725	751
Sandy lime	751	761
Red mud	761	790
Red rock	790	835
Red mud	835	872
Sand	872	878
Red mud	878	963
Red rock	963	1015
Sand, red	1015	1023
Red rock	1023	1025
Sand, red	1025	1045
Red rock	1045	1075
Gyp rock	1075	1225
Red rock	1225	1232
Quicksand	1232	1245
Sand	1245	1300
Dry quicksand	1300	1340
Gyp rock, hard	1340	1357
Sand	1357	1380
Red rock	1380	1415
Sand, soft	1415	1445
Red rock	1445	1460
Sand, soft	1460	1490
Red rock	1490	1515
Sand, soft	1515	1532
Red rock	1532	1568
Quicksand	1568	1575
Sand	1575	1620
Red rock	1620	1630
Sand	1630	1634
Red rock	1634	1670
Sand	1670	1725
Red rock	1725	1740
Sand	1740	1750
Red rock	1750	1760
Sand	1760	1777
Red rock	1777	1790
Sand	1790	1800
Red rock	1800	1835
Sand	1835	1845
Red rock	1845	1855
Lime	1855	1859
Lime, soft	1859	1895
Red rock	1895	1962
Sandy red rock	1962	2025
Red rock	2025	2040
Sand	2040	2080
Red rock	2080	2090
Sand	2090	2102
Lime	2102	2115
Red rock	2115	2120
Sandy red rock	2120	2150
Red rock	2150	2155
Lime	2155	2165
Red rock	2165	2175
Sand	2175	2187
Red rock	2187	2194
Lime	2194	2205
Red rock	2205	2219
Lime	2219	2225
Red rock	2225	2270
Sandy red rock	2270	2285
Red rock	2285	2320
Sandy red rock	2320	2365
Sand, water	2365	2375
Sandy red rock	2375	2400
Sand	2400	2431
Red rock	2431	2457
Sand	2457	2493
Sand, hard	2493	2524
Hard sand, red	2524	2560
Red rock	2560	2570
Red rock, cave	2570	2575
Sand rock, hard	2575	2580
Sandy red rock	2580	2630
Sand, red	2630	2640
Red rock	2640	2664
Red sandy lime	2664	2675
Sand, red	2675	2704
Red sandy lime, streaks of blue	2704	2725
Sandy lime	2725	2740
Red rock	2740	2765
Lime shell	2765	2770
Red rock, cave	2770	2779
Lime shell	2779	2782
Sandy lime	2782	2790
Sandy red rock	2790	2808
Blue shale	2808	2813
Sandy red	2813	2818
Sand	2818	2836
Hard sand	2836	2845
Brown shale and lime shell	2845	2860
Brown shale	2860	2880
Lime	2880	2908
Lime, grey	2908	2912
Blue shale	2912	2932
Grey lime	2932	2944
Blue shale	2944	2965
Lime	2965	2970
Blue shale	2970	3000
Blue slate	3000	3025
Lime, grey	3025	3032
Brown shale	3032	3100
Brown shale, cave	3100	3125
Lime, grey	3125	3138
Brown shale, cave 3175 to 3197	3138	3207
Lime	3207	3225
Grey lime	3225	3280
Lime, blue	3280	3315
Grey lime	3315	3345
Brown shale	3345	3355
White lime	3355	3383
Sandy lime, hole full of water, show of oil and gas	3383	3398
Sand, show oil and gas	3398	3410
Shale, brown and blue	3410	3420
Lime, white	3420	3427
Brown shale	3427	3445
Lime	3445	3455
Black shale	3455	3460
Lime	3460	3485
Brown shale with lime shells	3485	3512
Brown lime shale	3512	3528
Lime	3528	3538
Broken sand, 2 bailers water per hour	3538	3543
Brown shale	3543	3595
White lime	3595	3610
Blue lime	3610	3615
Grey lime	3615	3625
Broken lime	3625	3651
Grey lime	3651	3725
Grey shale, cave	3725	3750
Lime shell	3750	3760
Brown shale, cave	3760	3765
Lime, grey	3765	3785
Lime	3785	3857
Grey sandy lime	3857	3895
Lime	3895	3922
Grey shale	3922	3927
Lime	3927	3930
Shale	3930	3932
Brown shale, almost Black	3932	3960
Lime	3960	3970
Shale	3970	3973
Shale, brown	3973	4015
Hard lime	4015	4045
Shale	4045	4050
Lime	4050	4075
Grey shale	4075	4095
Oil sand	4095	4101

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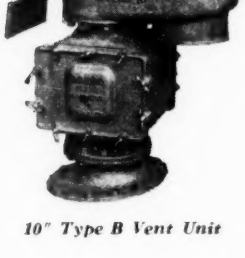

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the county will be described a little more in detail, because there have been attempts to prospect it for oil. The Purgatoire limestone bed rises from the bottom of the Cimarron Valley at the Sloan crossing near the middle of the west line of Sec. 11, T. 5N., R. 4 E., and can be traced over most of Tps. 5 and 6 N., R. 5 E., and as far east as Secs. 19, 30 and 31, T. 5 N., R. 6 E. This structure is a dome shaped anticline which covers practically all of T. 5 N., R 5 E. (The Ramsey well is in Sec. 27 of this township.)

"THE highest part of the dome is in the northwest quarter of Sec. 22, and from this point the rocks dip in all directions. Toward the west there is a slope of about 30 to 50 feet to the mile from the top of the dome to the Sloan crossing, 5 miles to the west. There is a drop of 100 feet from the top of the dome to the cliffs on the north side of the Cimarron River, a distance of some 3 miles, while to the east there is an abrupt drop of 120 feet in a little less than 2 miles. On the southern side of the anticline there is a drop of about 50 feet in the first mile. The slope then changes, rising toward the south until the bluffs of the Cimarron Valley are reached and the structure is lost under the late Tertiary formation. In general this structure is a dome with its top 150 to 200 feet above its base on all sides except the south, where it is only some 50 feet . . . . .

The top formation in a small area of northwest Cimarron county is the oldest. There has been an outpouring of lava since the most recent formations were laid down. Photo shows the crater, located across the line in Baca county, Colo., from which the lava flow came. Photo by Frank C. Greene, chief geologist, Skelly Oil Co.

"This dome is apparently only one feature of a folded zone running north and south, for there is a decided westerly dip to be seen the entire length of Ute Canyon, extending south across the valley of the Cimarron to the bluffs on its southern side."

While the showing of the Ramsey well is not such as to lead to predictions of a major field or district, it certainly is such as to cause rather persistent exploration. No other wells in Cimarron county have gone to the depths that Ramsey Brothers drilled, hence there is absence of basic information as to the surrounding country.

Vapor Recovery Plant is Big Dividend Payer

TULSA, March 5.—Vapor recovery plants recently installed at the Ponca City, Okmulgee and Gainesville plants of the Empire Refineries Inc., are paying big dividends on their cost according to an account in the current issue of "The Empire," employees' magazine.

Records of the Ponca City plant for the last quarter of 1926, indicate that the vapor recovery system there should pay itself out every eight months. The calculated earnings of the plant are 151 per cent per year after all charges.

The system at Ponca City produced 241,458 gallons of gasoline during the last quarter, an average of 2625 gallons per day. The net profit on operations was $7,089 per month. The plant cost $47,000 and is operated by one foreman and three shift men.

Gas from rundown tanks, storage tanks and receiving houses at the Empire plants is picked up by a compressor operating at a discharge of 20 pounds per square inch. Uncondensed gas from the cracking plants reaches the system under its own pressure and does not pass through the compressor. Gasoline content of the gas varies from 1.5 to 5 gallons per 1000 cubic feet, depending on the proportion of rich gas from storage tanks to gas from the cracking plant. Residue gas from the plant tests from 0.1 to 0.3 per thousand cubic feet.

Compressed gas passes to a 4 by 20 foot cooling tower where it is admitted near the bottom to pass upwards against a spray of water used for the double purpose of scrubbing and cooling. Gas then passes direct to two absorbers of the bubble tray type arranged in series.

Raw naphtha is used as an absorption medium. Average specifications are, 47-49 A. P. I. gravity with an initial of 220 to 250 degrees F. and an end point ranging from 435 to 450 F. This naphtha is pumped first to the second tower where it comes in contact with the partly denuded gas and then is pumped to the first tower where it passes downward counter current to the incoming rich gas.

The enriched naphtha is brought up in gravity to 51-52 A. P. I. and the initial boiling point is brought down to 100 to 120 degrees F. This naphtha is pumped to the treating system where it is blended with refinery and cracked gasoline to form a finished motor fuel.

DALLAS, TEX., Mar. 5.—The purchasing office of the Sinclair Refining Co. which has been in the Magnolia Bldg., was moved to 915 Hamilton Bldg., Wichita Falls, Tex., effective Mar. 1.

Fry Pool Production Off About One-Third

Staff Special

HOUSTON, Mar. 5.—Active exploitation of the shallow sand area along the west boundary of Brown county has resulted in the "head" going off the Fry pool and daily production declining from nearly 20,000 barrels to last week's average of 12,631 barrels. Lead wool is being used by operators to plug back a few feet wells on the north and west sides, which have been showing water.

Fry pool production is divided among 14 operating interests approximately as follows:

	Barrels Daily
The Texas Co., Lowe lease	3,658
Pugh lease	400
Sinclair O. & G. Co.	3,413
Amerada Pet. Corp.	1,990
Rex-Pyramid	983
Lester et al	742
Magnolia	150
Humble O. & R. Co.	75
Wentz Oil Corp.	500
Bowers et al	80
C. O. Moore	30
Charter Oil Co.	135
O. H. Shoup, Jr.	175
White Interests	250

MUSKOGEE—T. L. Coleman, associate petroleum engineer of the U. S. Geological Survey, who has been stationed at Okmulgee, has resigned to enter the employ of the General Petroleum Corp. at Los Angeles.

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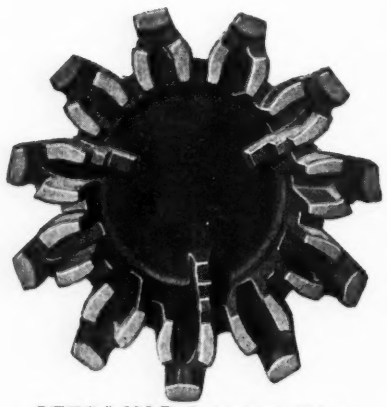

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Gas Utilization Ushering In New Era For Oil Production Industry

ARTICLE 1

VIEWS on the future economic effect of the rapidly growing use of the air and gas lift have been given National Petroleum News by prominent engineers and geologists. They are presented in two articles, as compiled by Paul Wagner, staff production analyst for this publication.

The first article appears herewith. The second will follow in an early issue.

Among the men who are quoted are James O. Lewis, of the Dunn-Lewis Oil Recovery Co., Tulsa; John M. Lovejoy, new chairman of the oil technology division of the A. I. M. E.; I. G. Harmon, vice-president, Marland Oil Co. of Texas, Fort Worth; Mark L. Requa, engineer, and head of the oil division of the fuel administration during the war; J. Elmer Thomas, geologist, Fort Worth.

Other prominent men gave Mr. Wagner their ideas on such subjects as the effect of the use of the air and gas lift on ultimate recovery, on rate of current recovery, on whether new methods would have to be set up to figure depletion, reserves, and so on.

These did not wish to be quoted, however, because they felt they were giving opinion only, in the absence of statements based on facts which are not yet available to any great extent.

Because of the great effect on practices within the industry, its estimates of future yields and so on this utilization of gas and air to help produce oil is certain to have, National Petroleum News offers this symposium to its readers. It will also be glad to publish in the future comment or discussion on this subject sent in by its readers.

HOUSTON, March 5.

INCREASING use of the gas lift has raised the double question as to whether this relatively new practice in oil recovery will increase ultimate yields, and whether oil companies will have to revise their methods of figuring depletion because of its effect on current yields.

Various areas of the southwest already have shown production increases through use of the gas lift that will at least equal the discovery and development of one major field this year.

How far this increase in daily average yields may be extended depends on the practicability of using the gas lift under the varying producing conditions found in areas where this practice has not yet been attempted and also upon the disposition of operating companies to initiate it.

In preparing this article many production executives, engineers and students of the industry have been asked for their views as to the future effect of the gas lift on oil yields. Its current effect in accelerating production recoverable in the first year of the life of a well has been indicated to a considerable extent in the Seminole, Okla., district and the Texas Panhandle. Only little has been learned yet, however, of its effect on ultimate yields and the percentage of recoverable oil taken out of the ground in the first year of a well's life.

IT can be said though that results will differ materially in the west Texas lime pay area as compared with regions wherein ideal sand conditions obtain and they will, likewise, appear differently in still other producing territories.

In one type of area, production executives and engineers find that flushing pay horizons by water back of the oil tends to increase ultimate yields where the gas lift is used, whereas in other regions they feel this method will merely serve to get out of the ground more cheaply and more quickly about the same quantity of oil that would have been recovered anyhow.

Unquestionably, the air lift will have a marked influence on the peak production of each new pool, its rate of decline thereafter and the relation between flush and settled production, says James O. Lewis of the Dunn-Lewis Oil Recovery Co., Tulsa; but Mr. Lewis believes that the use of the air lift will prove to be inseparably involved with casinghead gasoline production, the application of pressure to the sands and with co-operative development of oil pools in distinction from competitive operations. A detailed statement by Mr. Lewis will be published in the following issue of National Petroleum News.

JOHN M. LOVEJOY, vice president of the Amerada Petroleum Corp., Tulsa, and chairman of the oil technology division of the American Institute of Mining & Metallurgical Engineers, calls attention to one or two points which he regards of outstanding interest with regard to gas lift practice, saying:

"I do not think we will have to reconstruct our entire ideas as to the ultimate recovery from oil pools on account of the gas lift. The chief benefit from the gas lift in increasing production has been in the Seminole and Wewoka pools, where the gas-oil ratio is less than 500 cubic feet per barrel, and where the wells either do not flow when they are drilled in or else have an exceedingly short flowing life.

"On this type of production the gas lift is of tremendous importance and will show up in the decline curve just as though the wells had not stopped flowing. In other words, the decline curve of Seminole will have all the appearance of a normal gas-oil ratio curve and will eventually have to break to the pumping production of the field; but that break will be extended over a very much longer period than without the use of the gas lift.

"In production that has normal gas-oil ratio of 1000 to 5000 cubic feet per barrel of oil, I do not think the gas lift will have very much effect.

"AS to the ultimate production of sands on which gas lift is used, we can now do little but guess. My own impression is that the ultimate production will not be increased, and may be even diminished, as a gas flow puts small pressure on the sand at the time it is being used. Looking at the gas lift in a broad way, then, would mean that we will recover the oil from low gas-oil ratio pools at a very much higher rate than heretofore, but will probably not get any more in the long run."

The position of other geologists and engineers who did not want to be quoted was about as follows: Its effect on new fields will be even more pronounced than in present fields, since much of the gas lift practice depends, as yet, quite as much on luck as on carefully worked out application of scientific principles. A comparatively small number of the companies now at work have on their staffs men who have made a thorough study of the controlling factors that will give maximum efficiency with the gas lift and it is still too early for even the most progressive companies to secure full co-operation between the men in charge of production and the gas lift engineers.

Many engineers believe that the gas lift in most instances will result not only in a much quicker recovery of the oil, but also a greater recovery per acre, since there are now many data they point to as indicating that the gas oil

ratio is, as a rule, lower when gas lift is applied. If this has been achieved by methods now in vogue, they say, we may look forward to even greater recovery in the future.

Discussing results which may be considered possible, or even probable, in the application of the gas lift, I. G. Harmon of Fort Worth, production vice president of Marland Oil Co. of Texas, agrees that the industry probably will have to reconstruct its ideas as to ultimate recoveries from oil pools where the gas lift method is used to great extent.

In discussing the problem, Harmon finds it "necessary to differentiate between certain types of wells as to what the ultimate effect of gas lift will be." He discusses separately the fields in which the producing horizon is underlain with water and areas where the "pay" is regular, with no brine present and a normal amount of gas in the oil. Harmon says:

"Where the producing horizon is underlain with water, which condition exists throughout a great portion of that area of west Texas where oil is produced from the limes, it seems to me that there is no question but what the gas lift will increase in a very material way the ultimate production. The very fact that back pressure is held and that the gas is thereby conserved in the pay tends to hold the water back and prolong the producing life of the well over an indefinite period.

"To what extent this will increase the ultimate recovery varies with each well. We know that many wells would be 100 per cent water wells if this were not done, and that they may have an extremely long life if it is done. Therefore it would appear that it may be necessary to revise the estimates of ultimate recovery if the gas lift is used in such an area.

"It is impossible for us to give a definite figure which would represent our idea of what the increased production should be during the flowing period of a well by using the gas lift. We know that frequently it is doubled, and in some instances it has been increased four or five times. But, if a well is amenable to gas lift at all, the production is almost invariably increased.

"We have operated wells having very little gas in the pay, which would pump off during the day. Gas lift did not help these wells. This point seems to me to illustrate the real problem, which is not so much how we are going to lift the oil out of the ground as it is how we are going to conserve the gas within the oil sand so that when this gas expands it will force the oil towards the hole.

"It appears to me any method whereby this gas is conserved in the formation, so that the expansion of the gas is consistent with the rate at which the oil can be moved through the formation, is bound to increase the ultimate recovery of oil.

"We know that there are certain porous, soft streaks and crevices in the sands and limes and that, if large volumes of gas are suddenly released, the tendency is for the oil and gas to 'channel' through, thus preventing the gas from moving oil uniformly through the formations as it should. The gas certainly will take the course of least resistance. Consequently, it is my belief that the lower the gas-oil ratio the greater will be the ultimate recovery of oil from the formations.

"When the time comes that a well is a small pumping well most of the gas in the producing formations has been dissipated, with the result that the oil coming into the hole is coming in probably due to draining by gravity. I believe drainage by gravity alone extends back from the well a short distance, depending on the physical condition of the producing horizon. We know that in old depleted fields 'five spot' wells have been drilled which showed 100 per cent saturation.

"Therefore, if there is any additional recovery due to the fact that gas in the sand has been preserved and economically used, this additional recovery is likely to come from some point beyond the gravity drainage area; and such additional recovery is certain to be an ultimate increase. The amount of this additional recovery is probably indeterminate at this stage of the gas lift development, but as time goes on we feel certain we will acquire information that will serve as a guide in predicting the amount of this additional recovery."

Harmon refers specifically to the work of Lester C. Uren of the University of California, saying with regard to articles appearing exclusively in National Petroleum News:

"The theory of the increase in ultimate production has been ably expounded by a number of production engineers, notably by Professor Uren in his recent articles in your magazine. In our experience we have found nothing to contradict Professor Uren's conclusions and the results which we have obtained all tend to substantiate his theories."

Discussing the equipment phase of the newer practice, Harmon says:

"When a gas lift is once installed, due to its low operating cost, it is probable that its use will be continued until a well becomes a very small producer, say 5 or 10 barrels, unless the equipment is desired elsewhere.

"The equipment will be paid out, due to the increased recovery in the earlier stage of the well's life, and it may be more economical to continue to use it than to assume additional expense in equipping the well for the pump. However, I believe it is perfectly feasible, and probably will be the best course of action, to place such wells on the pump when their production becomes very small. When the pool is no longer a commercial producer on the pump pressure restoration or water drive may be resorted to if the formation is favorable."

Harmon does not believe that the backlog of the old settled production will be any smaller, but says:

"If we assume, on the contrary, however, that the ultimate production in either case will be the same, then if we should double (with the gas lift) the amount of production in the first year of a well's life, it probably will be equal to the loss in production over a period of possibly 10 years in the latter stages of the well's life.

"The increase in production during the first year of a well's life due to the gas lift would be recovered at a far less cost than an equal amount of production in the latter part of a well's life. The saving in lifting cost, plus the interest on this additional oil produced in the first year of a well's life, when considered over a five or 10 year period, would be a very considerable item.

"Granting then, for the sake of this discussion, that the ultimate amount of oil recovered would not be increased, at least the total amount of oil taken out would be produced at a much less cost with the consequent result that the consumer would be benefited by a lower price for petroleum products."

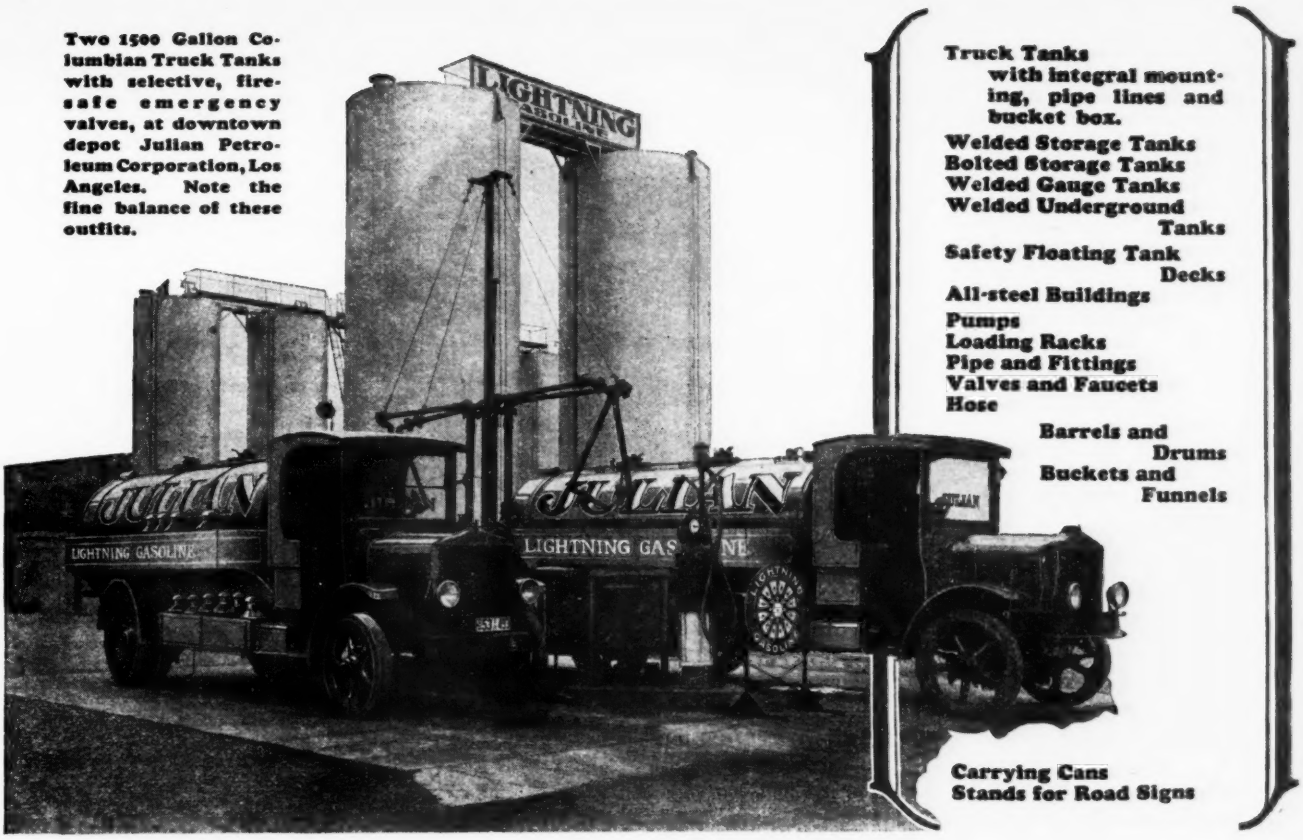
Application of the gas lift, Harmon points out, is not a cure-all; there are certain places where it can be economically applied and others where such is not the case.

"Therefore," he concludes, "in figuring the effect of the gas lift on the ultimate recovery of petroleum it should be considered in connection only with those wells or areas where it is economically advantageous to use it."

"Reginald Rabbit"

"The Reformation of Reginald Rabbit," two stories from which were published in National Petroleum News, March 2 issue, page 197, has created so much interest among people in the marketing branch of the oil industry since it was first published by the Indian Refining Co., that that company has printed many thousand additional copies which are available upon request.

There are ten stories in the series. Those interested in getting the entire series can apply to any Indian Refining representative, or to H. C. Grimsley, chief of sales service, Indian Refining Co., Lawrenceville, Ill.



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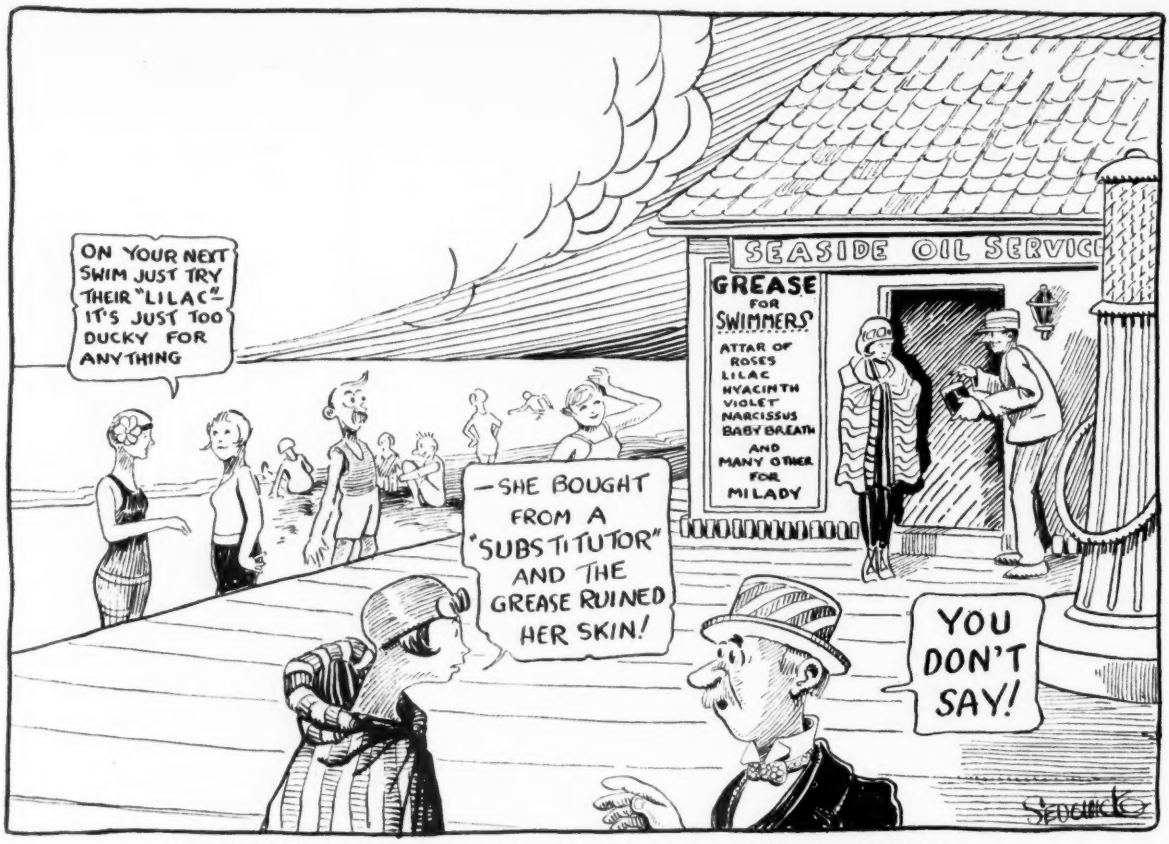

WHICH PROVES THERE ARE STILL POSSIBILITIES IN THE OIL BUSINESS

Letters To The Editor

National Petroleum News

CONFRONTED by conflicting ideas and theories as to what constitutes a good motor oil, jobbers are constantly seeking answers to the question. Here is a letter received by the editor of N. P. N. from a jobber:

"I would like to know what the following tests should be on a good standard grade of motor oil: gravity, flash, fire, pour, viscosity at 100 F., for light, medium, heavy and extra heavy grades."

The best we could do was to refer him to the requirements prescribed by the Federal Specifications Board for motor oils bought for the use of the U. S. government. These tests and methods of making them are contained in Bureau of Mines Bulletin 323-A and are as follows:

	Light	Medium	Heavy	Extra Heavy
Flash	325 F.	335 F.	345 F.	355 F.
Fire	365 F.	380 F.	390 F.	400 F.
Pour	35 F.	40 F.	45 F.	50 F.
Vis. at 100 F.	180-220	270-330	360-440	450-550

The writer of the letter also wanted to know what would be the relative value of the oil as it ran above or below the established figures. Inasmuch as the flash and fire are stepped up in the specifications from one grade to another by 10-degree jumps, it would seem that it was regarded that a difference of three or four degrees would make little difference.

The pour test requirement mounts in 5-degree steps and the viscosity specification has a tolerance of 40, 60, 80 and 100 seconds respectively for the various grades. P. T.

* * *

BARTER, trading one kind of goods for another kind of goods, still prevails in some corners of the world as is shown by the following letter received from a friend of the Canfield Oil Co.

"The company recently received from a customer on the Gold Coast of Africa a bale of monkey skins with the request that the skins be marketed and the proceeds credited against an order for oil. The company is faithfully carrying out this commission."

Another strange phase of trading is shown in another paragraph of the letter:

"A few days ago Canfield received an order for oil from a dealer in Bushire, Persia, accompanied by a draft on the Bank of Persia for $50. Attached to the draft was a quaint printed slip, showing much wear. The letter read in part as follows: 'To apply against this order we are making an advance payment of $60; $50 draft on the Bank of Persia and $10 in U. S. currency.'

"The $10 in currency proved to be a note of the Confederate States of America issued and dated Richmond, Feb. 17, 1864 and bearing the following inscription: 'Two years after the ratification of a treaty of peace between the Confederate states and the United States of America.'" P. T.

* * *

ANOTHER subject that is giving jobbers much concern is how to get for their customers a motor fuel that combines the high anti-knock value now demanded by the motorist with the quick starting qualities which are even more demanded. A jobber asks:

"We are selling a straight California cracked gasoline of low gravity which has those qualities that make it possible to call this gasoline non-knocking. The gasoline is not, however, a highly volatile product and we would like to make it more volatile without injuring its anti-knock qualities."

We told him that natural gasoline seems the best bet for him as that will give the gasoline the needed low boiling fractions without lessening the anti-knock value. We referred him to the story by Colonel Burrell on page 108 of the March 2 issue of N. P. N. P. T.

The Editors' Viewpoint

National Petroleum News

Special Law Against Substitution Unnecessary

By Warren C. Platt
Editor

THE Vacuum Oil Co. of New York is endeavoring to secure the enactment of the following bill as a law in every state in its campaign against alleged motor oil substitution.

To Prohibit the Sale of Spurious Lubricating Oils for Use In Automobile and Other Internal Combustion Engines

Section I. Delivery of Substitute without Explanation, Prohibited.

It shall be unlawful for any person, firm or corporation to fill with a spurious article any order for a lubricating oil for automobile and other internal combustion engines, if such oil ordered is designated by a trade mark or distinctive trade name, unless and until it is explained to the person giving the order that the article offered is not the article that he has ordered, and the purchaser shall thereupon elect to take the substitute article that is being offered to him.

Section II. Misbranding of Goods in Stock, Prohibited.

It shall be unlawful for any person, firm or corporation to display on any can, drum or other container in which lubricating oil for automobile or other internal combustion engines is kept for sale, or from which it is poured or drawn for sale, a trade mark or trade name which is not the distinctive designation of the oil actually contained therein.

Section III. Oils Designated by Trade Mark or Name to be Kept for Sale in Containers so marked.

It shall be unlawful for any person, firm or corporation to fill any order for a lubricating oil for automobile or other internal combustion engines that is designated by a trade mark or distinctive trade name unless at the time of sale the oil is poured, drawn or taken for delivery from a can, drum or other container or bottle rack marked in such a manner as to be legible and clearly visible to the purchaser with the trade mark or distinctive trade name by which the oil is designated.

Section IV. Oils not Designated by Trade Mark or Name to be Kept for sale in Containers marked "Unbranded Lubricating Oil."

It shall be unlawful for any person, firm or corporation to fill an order for a lubricating oil for automobile or other internal combustion engines with oil that is not designated by a trade mark or distinctive trade name, unless at the time of sale the oil is poured, drawn or taken for delivery from a can, drum or other container or bottle rack marked in such a manner as to be legible and clearly visible to the purchaser, with the words "Unbranded Lubricating Oil".

Section VI. The Display of Signs Advertising Brands not in Stock Prohibited.

It shall be unlawful for any person, firm or corporation to display any sign, label or other designating mark which describes any lubricating oil for automobile and other internal combustion engines not actually on sale in bona fide quantities at the place of business where the sign or label or other designating mark is displayed.

Section VII. A copy of this Act to be Displayed at Place of Business.

Every person, firm, association or corporation selling or offering for sale lubricating oil for automobile or other internal combustion engines in this State shall conspicuously display at every place of business a printed copy of this Act.

Section VIII. Penalty. That any person, firm or corporation violating any of the provisions of this Act shall for each offense be deemed guilty of a misdemeanor and punishable by a fine of not less than $50 or more than $300, or by imprisonment in the County Jail for not less than 20 or more than 90 days or both.

The Vacuum representative claims that the laws now on the statute books against fraud are not clear enough to make conviction of motor oil substitutors easy and that the foregoing law is required. The above is substantially the law which has been in effect in California for several years and also as an ordinance in several cities.

In California the next step, after enacting the law, was to provide some means of enforcing it and this has been done by assessing a tax against all service stations, but not all motor oil outlets by any means, and the employment of an inspector whose sole duty it is to see that the law is not violated.

The stand of the Vacuum Oil Co., according to its representative, is that the existence of this particular oil law on the books will have a deterrent effect upon all alleged substitutors, and that the Vacuum and others interested will see that they are kept informed of its existence. The law requires a copy be posted "at every place of business"—whatever that may mean. So that by a constant beating of the bushes and of the drums and sounding of the horns, some honesty, it is hoped, can be scared into the alleged substitutors.

The contention of this paper from the start has been that legislation is not necessary and will not make a dent on the situation even assuming that conditions are as bad as the Vacuum Oil Co.'s representative says. It has further contended that any such sounding of trumpets would only attract politicians and oil inspectors to the thought of further taxes on the oil industry to enlarge the scope and activities of their departments so as to inspect all motor oil outlets for this alleged substitution.

Other industries manage to do a pretty good job of seeing that the public gets their products without the need of special state inspection. There is no reason why the oil industry

shouldn't. In fact, the oil industry is doing a mighty good job. There are only a few national brand companies that are having any trouble and a considerable part of that trouble, as small as we believe it is, is due to the uneconomic sales policies and methods of distribution being used by those companies and the fact that they are not particular as to what type of dealers distribute their products and have their signs.

NATIONAL PETROLEUM NEWS is of the opinion that there are already on the statute books sufficient laws to deal with the situation. In addition to the regular laws on frauds and so on, there is a law on the statute books of many states known as "Truth in Advertising Law" which says:

"Whoever, with intent to sell, or in any way dispose of merchandise, ...or anything offered by him directly or indirectly, causes, directly or indirectly, to be made, published, ... an advertisement of any sort regarding merchandise, ...or anything so offered to the public, which advertisement contains any assertion, representation or statement of fact which is untrue, or deceptive, shall be guilty of a misdemeanor and on conviction thereof shall be punished by a fine of not less than $10 nor more than $100, or by imprisonment in the county jail not exceeding 20 days, or by both said fine and imprisonment."

It has been held by those who have been instrumental in getting this law passed and who are instrumental in seeing it enforced that this covers everything that relates to representation made regarding the sale of a commodity, including the label on a barrel. Under this law, therefore, all the Vacuum Oil Co. or any other national advertiser has to do is to prove that the oil therein is not its oil.

The further purpose of the proposed Vacuum Oil Co.'s bill to require the drawing of motor oil from a labelled container is substantially adhered to now. In fact, the chief complaint of the Vacuum Oil Co.'s representative has been that their barrels, properly labelled, are being filled with other people's oil. In other words, that the oil is being drawn from a labelled barrel today, just as if this law were in effect.

The number of people who sell oil from an unbranded barrel or tank is so infinitesimal as not to be worthy of any consideration. Any reputable concern is proud to put its name on a package and the public certainly, through its years of experience in all lines of business, has shown its preference for dealing with reputable companies, whether oil companies or garages, or small dealers.

Again, we state, that the place for this oil substitution argument is in the American Petroleum Institute. It should be taken up by those complaining with the directors of the Institute. If they are impressed with the amount of evidence that may be submitted, that there is some ground for the complaint, then a thorough investigation can be made as to the facts to see the extent of the evil complained of, and then to see what measures can be taken to avoid the evil, including possible improvement and changes in the methods of selling and distributing motor oil.

NATIONAL PETROLEUM NEWS believes that the outside hullabaloo which has been kicked up on this subject has been entirely unwarranted and has been of great damage to the oil industry, because it has gotten into the hands of vicious outsiders whose selfish interest is concerned with seeing how much noise they can make and hence they have exaggerated and falsified the whole situation.

Seeking of special legislation of this sort by individual companies we believe is especially poor policy—at least before all other means of finding a remedy have been exhausted.

Collecting Gas Taxes Costs $11 Per $1000

Staff Special

CHICAGO, Mar. 4.—Collecting gasoline taxes for the state costs an oil jobber $11 per $1,000 of tax collected, according to figures compiled recently by Barney L. Majewski, in charge of distribution for Shaffer Oil & Refining Co., with headquarters in Chicago. The cost was figured minutely in the 10 states which have a gasoline tax wherein Shaffer has distribution.

This company markets in Michigan, Wisconsin, Minnesota, Iowa, Nebraska, Oklahoma, Indiana, Arkansas and both Dakotas. To be very exact, Mr. Majewski says, the task of acting as tax collectors for the state costs the Shaffer interests $11.03 per thousand. The claim of gasoline tax proponents in Illinois that the average collecting cost to a state is $2.64 per thousand, Mr. Majewski says, is not a collecting cost but a confession that it cost the states that much to bank the money after it is already collected by the oil men. This brings the total collecting cost up to $13.67 per thousand.

The Shaffer books indicate the oil man's cost to collect the gasoline tax may be divided into three kinds of losses. The burden is 40 per cent accounting overhead; 40 per cent loss in stock and handling (material upon which tax is paid but is never sold) and 20 per cent bad account losses. "Although losses through bad accounts are the smallest item they are the most aggravating," Mr. Majewski says. "We have cases in states in which farmers' gasoline tax is refunded upon the user's affidavit, where farmers have bought gasoline from us on credit, collected their tax refund from the state and gone bankrupt without paying the bill. So they got the gasoline free and 2 cents a gallon besides."

About five-sixteenths of the Shaffer company's expenses for statistics could be saved if it were not for the gasoline tax, against which records have to be kept, the official says. For instance there are eight men in the statistical department in Chicago, and the equivalent of 2½ men could be cut off the pay roll if the tax records were not necessary. A good statistical clerk is worth roughly $1,800 a year.

LAKE WILSON, MINN.—The Murray County Co-operative Oil Co. began to organize in June, 1926 and in about 20 days had sold enough stock to buy out an Independent oil jobber. By July 1, the company started business. Underground storage tanks and 11 pumps were installed.

The company operates one filling station, which is equipped with five tanks, at Slayton, Minn., according to W. I. Severance, secretary.

A. P. I. Adds Six More to Accounting Body

CLEVELAND, Mar. 4.—The American Petroleum Institute's committee on uniform methods of oil accounting has been enlarged from 19 to 25 members. M. W. Mattison, general chairman, has announced in New York. New members are:

M. A. Chambers, Panhandle Refining Co.; A. B. Chesebro, Carter Oil Co.; Wesley Cunningham, Petroleum Accountants' Association of California; Albert Hill, Atlantic Refining Co.; Ira McFarland, The Texas Corp., and P. G. Williams, Associated Oil Co. H. F. Davis, Standard Oil Co. of New Jersey has succeeded C. B. Ware.

Old members are: L. H. Atwell, Jr., Humble Oil & Refining Co.; W. K. Cottrell, Mid-Continent Oil & Gas Association; Rodney S. Durkee, General Petroleum Corp.; G. H. Forster, Union Oil Co. of California; Herbert A. Gidney, Gulf Oil Corp.; H. G. Humphreys, Skelly Oil Co.; C. J. Jay, Pure Oil Co.; Paul R. Jones, Henry L. Doherty & Co.; F. S. Reitzel, Sun Oil Co.; E. G. Seubert, Standard Oil Co. of Indiana; L. S. Sinclair, Magnolia Petroleum Co.; P. S. Tarbox, National Petroleum Association; P. W. Thirtle, Sinclair Consolidated Oil Corp.; A. F. Whiting, Louisiana Oil Refining Corp.; George F. Winters, Phillips Petroleum Co., and Mr. Mattison.

Method for Determining Submergence and Efficiency in Air Lifts

By S. F. Shaw
Consulting Engineer, San Antonio, Texas

THE fluid level in an oil well or water well is that point to which the liquid will rise under existing conditions. If there be no discharge of the liquid from the well, the liquid will assume a static condition. If the liquid is being pumped, whether by plunger pump or air lift, the level of the liquid will be lowered, depending upon the rate at which the liquid will enter the well when the well is being pumped at any given rate.

The term "submergence" has been employed for many years by those versed in air lifts to denote the height of the liquid above the point at which the air is admitted at the lower end of the air tubing. When starting a well on the air lift the submergence is usually higher than when the well is being pumped; this is termed "starting submergence." When the well has reached a stationary condition it is called "working submergence." Submergence may be expressed in feet of water, feet of oil, or in pressure in pounds per square inch. Before calculations for air lifts can be made, it is necessary to determine the lift, that is, the height to which the liquid must be raised, and, in order to do this, it is necessary to ascertain the submergence in feet, since the total vertical length of the air pipe minus the submergence is the "lift."

THERE are three general types of air lift installations.

1. Two pipes, side by side, connected near the lower end, the air flowing through one of the pipes to the connection, and the mixed air and liquid rising through the other pipe.

2. Two pipes, one inserted in the other and the air flowing through the inner pipe to the lower end, the mixture of air and liquid rising in the annular space between the two pipes. This is called the central air lift system.

3. Two pipes, one inserted in the other, the air passing through the annular space between the two pipes, the mixture of air and liquid rising in the inside pipe. This is called the Saunders system.

In the first type, a liquid level is maintained which can be measured. In the second and third types the liquid column is in motion in both pipes and submergence cannot be actually measured, but the level to which the liquid would rise at the instant the air is cut off from the air pipe can be determined by noting the gage pressure at the top of the well and subtracting from this the friction loss due to the air flowing through the air pipe, thus obtaining the pressure at the bottom of the air pipe. The feet of corresponding submergence can then be determined from this figure of pressure, making allowance for the specific gravity of the particular liquid being lifted.

Oil wells which have ceased to flow present an exact parallel to water wells as regards submergence. One may be somewhat puzzled as to the manner of handling submergence in flowing wells, but a little study in air lift practice will reveal the fact that the theoretical submergence presents exactly the same problem as is found in a water well; submergence and lift can be calculated from the pressure obtaining at the lower end of the flowing column.

A WATER well would show a condition of ebullition if insufficient air were admitted to cause it to flow; the level would be found higher than the level that would obtain if the column were not made lighter by the air passing through it. This does not change the considerations of submergence, however, as the water column is considered as if it had a specific gravity of 1, and not the accidental specific gravity due to variable quantities of air slipping through it. An oil well should be considered in the same manner; that is, the submergence is that which would be measured if there were no gas mixed with it and slipping through it. For a given pressure, the submergence of most oils is greater than that of water, owing to the lower specific gravity of the oil.

Examples of wells in the Panhandle and in Seminole will illustrate the use of submergence, lift and efficiency. In paper presented before the American Institute of Mining & Metallurgical Engineers at the February meeting of 1927 by E. O. Bennett and K. C. Sclater, depths of wells in the Panhandle are given as about 3000 ft.; tubing length about 2400 ft.; working pressures 160 lbs. per square inch; gas lift factor, 1000; and I am assuming the oil to have a specific gravity of approximately 0.85. The submergence for water at 160 pounds would be 368.6, and for oil at 0.85 specific gravity would be 434 feet. The lift would then be 2400 minus 434 or 1966 feet. The quantity of air at 100 per cent efficiency to raise 1 barrel of oil of specific gravity of 0.85 to a height of 1966 feet under pressure of 160 pounds submergence would be 112.0 cubic feet. The efficiency obtained is then 112.0 divided by 1000, or 11.2 per cent. An example of a well in Seminole on which data were recently observed, calculated in the same manner as for the Panhandle is noted in the accompanying table:

Data on Air and Gas Lift Wells in the Panhandle and in Seminole

Field	Working Pressure or Sub-mergence	Sp. Gv. of the Oil	Feet Submer-gence	Length of Air Line	Feet Lift	Gas Lift Factor, or Cu. Ft. Gas Consumed per Bbl.	Quantity Required at 100%	Per Cent Efficiency Obtained
Panhandle	160	0.85	434	2400	1966	1000	112.0	11.2
Seminole	160	0.82	450	3968	3518	915.6	102.8	21.1

If we were not to take into account the several factors involved, such as lift, submergence, etc., we might be misled into thinking that the work in the Panhandle was approximately as efficient as in Seminole.

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Filter Presses — *Wax Moulding Presses*
Wax Distillate Chilling Machines — *Scale Wax Cooling Drums*
Wax Testing Presses — *Paraffine Wax Sweater Plants*
Complete Wax Plants designed and built
Pumps, Stills, Towers, Condensers and other Oil Refinery Equipment
Oil Burning Systems — *Complete Power Plant Equipment*

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The Granberg Petroleum Meter

A *Simple* and *Reliable* Instrument
THE GRANBERG METER
is designed particularly for use on Tank Wagons and Loading Racks and for general service in distributing plants.
This meter will handle all refined petroleum products and will insure accurate records of receipts and deliveries.
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St. Louis, Mo.

Regional Clubs to Work on Local Marketing Problems in Ohio

Barnstormers of Ohio Petroleum Marketers' Association. Left to right: W. A. Milne, executive secretary, and H. G. Triplitt and F. J. Schauwecker, Sterling Oil Co., St. Marys, W. Va., on tour, organizing local petroleum clubs

Staff Special

CLEVELAND, Mar. 5

LET the local oil man solve the local problem, is the policy of the Ohio Petroleum Marketers Association, and to provide a means of settling the local problem, sectional clubs, all affiliated with the state association, have been organized or soon will be organized. Organization of these clubs form part of the program of W. A. Milne, executive secretary of the Ohio association who formerly was engaged in oganization work for the Chamber of Commerce of the United States.

At the annual meeting of the Ohio association in Columbus recently, Mr. Milne announced that 11 sectional clubs had been formed. It is the plan to have 15 clubs when oil marketers in each of the 88 counties in Ohio are fully organized.

From Dec. 1, last, until Feb. 15 Mr. Milne had held 23 local meetings at which were 433 oil men. He held 13 meetings in January and was assisted in his barnstorming then by H. G. Triplett, manager of the Sterling Oil Co., St. Marys, W. Va., and F. J. Schauwecker of the same company, who spoke on merchandising.

Active membership in the local clubs cost $5 a year and associated memberships $1 a year. The clubs are members of the state associations, paying $1 a year. Each club has a constitution and by-laws. Besides the usual officers it sends a delegate to a newly created advisory council of the state association. The advisory council sits with the board of directors of the state association at each monthly meeting to present conditions in various parts of the state and the concensus of opinion of each club membership.

The local clubs meet once each month and it is the intention of the state association to have experts address them about merchandising, service station management, overhead and cost accounting, and other subjects of special interest to marketers. The state association is to bear the expense of having speakers make the round of clubs. The club also will try to keep the oil trade on an ethical basis in their territories.

There are local clubs in Cincinnati and Cleveland. Nine other clubs, their territorial scope, and focal cities are:

Southeastern Ohio Petroleum club, nine counties, Zanesville.

Eastern Ohio Petroleum club, five counties, Cadiz.

Mahoning Valley Petroleum club, three counties, Youngstown.

Tri-County Petroleum club, three counties, Akron.

Four-Square Petroleum club, four counties, Ashland.

Lake Shore Petroleum club, four counties, Bellevue.

Maumee Valley Petroleum club, seven counties, Toledo.

West Central Ohio Petroleum club, ten counties, Lima.

Central Ohio Petroleum club, eight counties, Columbus.

The membership of the state association has been doubled since the sectional local meetings were begun.

The Central Ohio club was organized Feb. 16 at a meeting in Columbus. E. Quinby Smith, Mt. Sterling, was elected president; R. R. Lanning, Logan, vice-

president; Frank Carpenter, Lancaster, treasurer, and R. W. Palmer, Columbus, secretary. This club is to meet the last Friday in each month. The March meeting will be in Columbus and the April meeting at Logan. Subsequent meetings will be in other parts of the eight counties that comprise the club's territory.

Veteran Benzol Expert Starts in Business

CLEVELAND, Mar. 5.—W. F. Stack, one of the pioneers in the making of anti-knock motor fuel by blending benzol with gasoline in the proper proportion, has entered the oil business in Birmingham, Ala., under the name of W. F. Stack & Co. The company is marketing Go-Zip, a benzol blend fuel, and Germfin motor oil.

Mr. Stack states that two points are missed by many companies marketing benzol blends. One is that they do not maintain uniformity and the other that they do not always exercise the care necessary to use a fuel with low initial boiling and warming up temperatures so that in addition to anti-knock features, their customers get easy starting also.

The proper way to blend benzol and gasoline is by weight and not by volume, Mr. Stack says. Blending by weight gives a more nearly uniform product than blending by volume. Also, a good many benzol blend dealers use more benzol in their blends than necessary to get the desired results, he says.

The Stack company will operate a blending plant where the benzol and gasoline will be blended properly and shipped out in tank cars to the wholesale dealers, according to Mr. Stack who says he has endeavored to make it possible for benzol blend fuel to be obtained by motorists from New York to California and from Minnesota to the Gulf of Mexico.

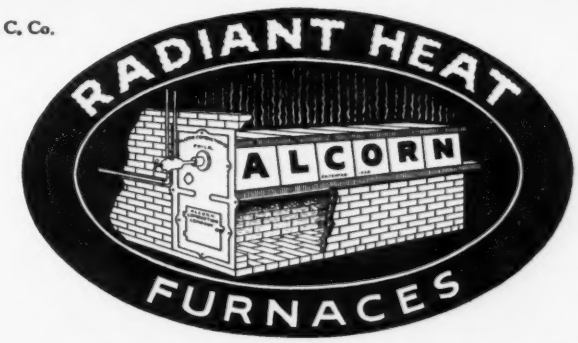
Mr. Stack has been in the oil business for 22 years, with the Standard Oil Co. of Kentucky at Birmingham, Ala., with the Gulf Refining Co., with the Wofford Oil Co., with the Woco-Pep Co. of Tennessee and with the Producers & Refiners Corp. of Tennessee.

LOS ANGELES, Mar. 5.—Union Oil Co. of California has four Cross cracking units in operation at its refinery in Los Angeles County, with total daily charging capacity of 8000 barrels. A fifth unit is being installed. This will give the Union a daily cracking capacity of 10,000 barrels.

COLUMBUS, O.—C. G. Selby, president of the Selby-Jones Oil Co. here, jobber and marketer of Transcontinental Oil Co.'s products, is also associated with the Duquesne Oil Co., as manager of its Warren, O. branch.

HOGGAD, KAN.—Farmers Elevator Co. is erecting three bulk storage tanks.

© 1927, A. C. Co.



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Sectional view Fig. 368, screwed Jenkins Standard Bronze Gate Valve, with yoke, outside screw, and rising spindle.

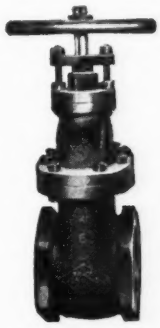

Fig. 325
Screwed, Jenkins Standard Iron Body Gate Valve.

Tested on both sides of the wedge

It is typical of the thoroughness of Jenkins manufacture that every Jenkins Gate Valve is tested on both sides of the double-faced wedge. If a valve does not make good in a test which allows a wide safety margin, it does not leave the factory.

The testing idea is applied to metals too. Analyses by competent metallurgists are given before and after casting.

Jenkins Gate Valves are furnished in bronze and iron, standard, medium pressure and extra heavy patterns. When so ordered, you can obtain Jenkins gate valve specially tested and specially packed for oil service.

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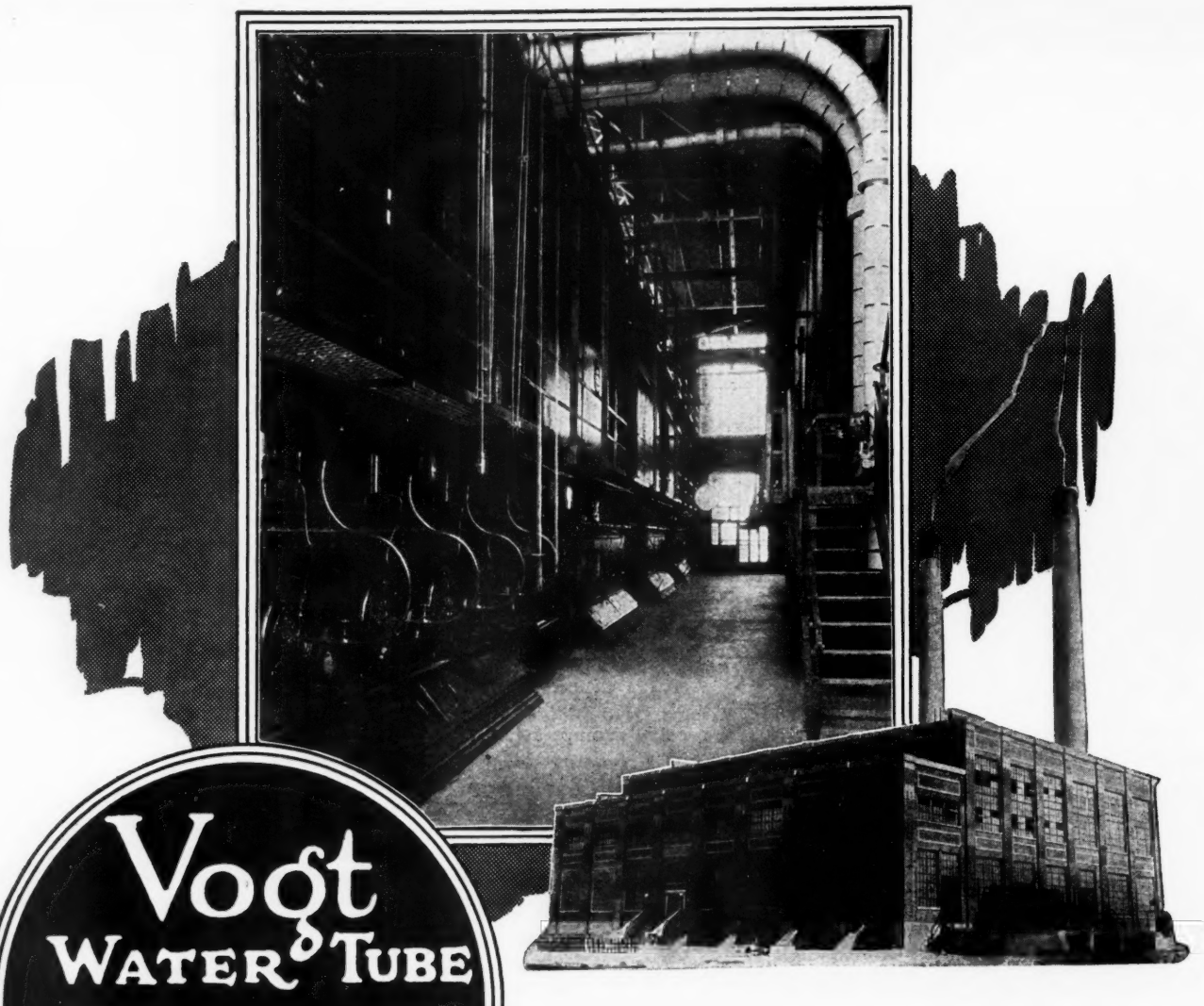


Vogt Water Tube Boilers Equipped With Oil Burners

A beautiful building does not always indicate an economical power plant, but it is generally found that those who take pride in the appearance of their power plant are equally cautious when selecting the most efficient steam producers. The illustration shows a modern power plant of one of the larger oil refineries operating 13,000 Horse Power of Vogt Straight Tube Water Tube Boilers.

HENRY VOGT MACHINE CO.
INCORPORATED
LOUISVILLE, KY.

New York Chicago Philadelphia Cleveland Dallas

Manufacturers of: OIL REFINERY EQUIPMENT, DROP FORGED STEEL VALVES AND FITTINGS, WATER TUBE AND HORIZONTAL RETURN TUBULAR BOILERS, ICE MAKING AND REFRIGERATING MACHINERY.

25 Pounds Ammonia Per 1000 Barrels Crude Cuts Down Corrosion In Refinery

WALTER SAMANS, chief engineer of the Atlantic Refining Co. read at the A. I. M. E. meeting in New York a paper prepared by himself and D. E. Pierce of the Atlantic, on the method of feeding ammonia into the charging lines of crude stills and vapor lines to neutralize hydrochloric acid corrosion. The equipment used, the method and the result is thus described by Mr. Samans:

The ammonia, about a 29 per cent solution, is discharged into an underground storage tank, and enough water to dilute it, a solution containing 17 per cent NH_3 is added. In warm weather the concentrated solution gave trouble from gas binding on the pump. For Panhandle crude the same volume of solution is charged but the concentration is raised to 22 per cent NH_3.

The solution is blown by air pressure into an elevated tank. The flow from this tank to the ammonia pump is by gravity through a ¾-inch line.

The ammonia pump is a ¾-inch Goulds hydraulic pump. It has a ¾-inch suction and a ⅜-inch discharge. The plunger is ¾-inch in diameter and the stroke is variable. The valves are simple ball check valves. The pump is driven by a system of levers fastened to the crude charging pump. The discharge line from this pump leads into the discharge line from the charging pump. Twenty-five pounds of NH_3 is charged per 1000 barrels of crude.

BEFORE the ammonia was used the following things occurred:

1. The seats and gates of the valves in the crude lines were badly corroded.

2. Water from the water separator was acid.

3. Water from the water separator contained 0.03 per cent FE. This was equivalent to 0.5 pound of iron per hour from each still.

4. The steel spools between the sections of the condenser were perforated by the corrosion during the period from March 1 to May 25.

5. These were replaced by steel spools on No. 203 still and lead-lined steel spools on Nos. 201 and 202 stills.

6. On June 14, 1926 the water from the water separator showed 0.03 per cent FE, 0.03 per cent sulfur, and acidity of 0.09 per cent H_2SO. It contained a grayish-green sediment which showed 82 per cent sulfur and 2.5 per cent iron on analysis.

The HiVis stream contained a trace of iron.

The bottoms stream contained a trace of iron and a slight trace of copper.

7. One day thereafter the water from the separator showed 0.023 gm. HCl/100 cc., 0.049 gm. Cl_2/100 cc. and the presence of sulfate.

The ammonia was first used on June 16, 1926. It was put into the system at the vapor outlet from the still. After this system was put in:

1. The water showed alkaline and contained no FE.

2. Small amounts of NH_3 gave a turbid water. This was alkaline, but contained suspended iron.

3. On July 1, 1926 and July 2, the water from the separator showed the following analysis:

Date (1926)	Still No.	Alkalinity as Percent NaH
July 1	201	.013
July 1	202	.024
July 1	203	.032
July 1	203	.016

The ammonia was pumped into the discharge line from the charging pumps on July 3, 1926.

The following things have been noted:

1. The trouble with corroded valve seats and gates in the crude line is much less. No quantitative data is available.

2. An exchanger cleaned July 30, after the ammonia had been put through the tubes, was again cleaned Sept. 3. Analysis showed 4.16 per cent copper.

3. An exchanger cleaned on Sept. 5 showed 5.36 per cent copper in the analysis of scale.

4. On July 9, 1926, the water from the separator showed the following analysis:

Still No.	Gm NH_4OH	$(NH_4)_2S$
201	0.004	0.150
203	0.009	0.077

Discussion of Results

1. With no ammonia, the water from the separator is practically clear, except for small sulfur crystals. It has an acid reaction and carries FE and CU in solution.

2. With the addition of a certain amount of ammonia, the sulfur comes down in a colloidal form, giving a milky appearance to the water, which is still acid to methyl orange, and contains FE and CU.

3. When sufficient ammonia has been added to make the water neutral to methyl orange, the solution is intensely black with FES.

4. As more ammonia is added the water becomes lighter in color until at an alkalinity equivalent to 30 cc. of N/10 H_2SO_4 per 100 cc. of water (0.51 gm. NH_3/liter) the black color has almost disappeared.

5. As still more ammonia is added, to the equivalent of 40 cc. N/10 H_2SO_4 per 100 cc. of sample, the water becomes

Sulfide as Percent Na_2S	FE	CU
.16	None	None
.13	None	None
.12	None	None
.14	Trace	None

clear and shows no FE or CU in solution. This shows that corrosion from this source has been stopped. This is equivalent to 0.68 gm. NH_3 per liter or 0.28 pound per 50-gallon barrel. Twenty-five pounds of NH_3 is charged per 1000 barrels of crude. This then is equal to 0.715 pounds of NH_3 per barrel of water charged. Thus approximately one-third of the NH_3 goes through the system unchanged.

6. No quantitative data is available on the life of the spools in the condenser since the material of these was changed

NH_4HS	FE	CU
....	Present	None
....	Present	None

at the same time the ammonia was added.

7. The corrosion of the exchangers on the stream side does not seem to be affected.

8. The ammonium chloride is deposited in the top section of the vapor exchanger and in collecting here tends to block the vapor passage. This puts a back pressure on the top of the column. It can be removed during a shutdown, by washing out with hot water.

Per Well Yield 57 Barrels

LOS ANGELES, March 5.—There were 447 wells drilling in California Jan. 31 against an average of 417 in 1925 and 510 in 1924. One hundred and forty-one are wildcats, or wells in unproven territory. During January, 35 dry holes were abandoned, 28 old producers were plugged and abandoned. During January, 103 wells were completed for a total initial production of 46,370 barrels. At end of January, 11,405 wells were producing in the state, with an average production of 57 barrels per well.

Barber's Hill Tract Brings $350,000

HOUSTON, March 4—Joint ownership of the Kirby, Barber and Kirby "B" leases on the Barber's Hill salt dome, Chambers county, has terminated by purchase by the Humphreys Corp., of the interest previously held by the Mills Bennett Production Co. The leases, which are on the west and northwest flanks of the dome, total 367 acres. Production totals about 370 barrels daily.

Consideration was $350,000, including $150,000 cash; $50,000 to be paid in 90 days, and the balance to come out of half of the oil produced.

Our Industry—A Page of Facts and Personalities

National Petroleum News

By Paul Wagner

NEWLY elected directors of the American Chamber of Commerce at Tampico include a number of oil company officials. C. H. Lieb of Transcontinental Petroleum Co., subsidiary of Standard Oil Co. of New Jersey, is second vice president and W. L. Bagby of the "La Corona" arm of the Royal Dutch-Shell group is third vice president. John I. Newell was re-elected president, Harry W. Berdie manager and Scott M. Handley of the United Dredging Co., first vice president. A. L. Schumacher is treasurer.

* * *

OFFICERS and directors of companies interested in the petroleum industry, as well as individual operators, stockholders and others directly and indirectly affected, would do well to take notice of the marked tendency to overtax the industry, says the February issue of The Texaco Star.

"It is easy," says this house organ of The Texas Co., "for the general public to gain the impression that the industry, on the whole, is a very profitable one because of the publicity given to the few and the lack of general information as to those who are unsuccessful.

"For the three years period, 1921 to 1923, inclusive, the strictly producing interests, numbering about 3000, showed a loss of $277,514,320 with a tax of $64,424,984. The manufacturing companies, many of whom are also producers, for the three years showed a net income of $349,598,270 with a total tax of $188,656,866, of which $52,422,383 was gasoline sales tax. Thus the whole industry for this three-year period showed a net earning of $72,083,950, with a total tax of $253,081,850, or a tax of more than three times the net income.

"In 1924, returns were made by 3903 strictly producing interests, with a net income of $91,642,118 and taxes amounting to $35,434,404. Manufacturing companies to the number of 587 reported a net profit of $214,776,541, with a tax of $135,002,361, or a net income for the 4490 interests of $306,418,659 and a tax of $170,436,765.

"For the four-year period the industry is credited with net earnings of $378,502,609, with a total tax of $423,518,615. It is estimated that the aggregate investment in the industry during this period was about ten billion dollars; an average earning of less than one per cent."

DON J. WALLACE

DON J. WALLACE, director of the Petroleum Safety Council of the Mid-Continent Oil & Gas Association, Tulsa, generally wears a smile. That, in addition to his inherent ability as a Safety worker, is partly responsible for the success he has attained. Wallace was named the council's director when Ray E. Miller resigned to again take up work as head of the Safety department of the Marland companies. Wallace had been in charge of Safety at Humble Oil & Refining Co.'s Baytown, Texas, plant for more than a year. Previous to that he had made headquarters at the Humble's Houston office, being in general charge of Safety work.

* * *

MIKE and Will Hogg, sons of an illustrious father, have been known for their oil activity rather than for political effort. They both live at Houston, where Mike has just been elected to the state legislature, the only political office for which his father was ever defeated. Neither of the two sons had ever sought office before. It was on the West Columbia ranch of the late Governor Hogg, father of Mike and Will, that The Texas Co., 10 years ago, discovered one of the greatest of Gulf Coastal salt dome oil fields. Since that time the Hogg family has figured in an important way in oil affairs of the southwest, generally in a financial sense.

* * *

WHEN a new oil field comes into the making in parts of west Texas it is also the forerunner of geographical changes. It is apt to call for the building of an entirely new town where none had stood before. Such was the case at Best and Texon, adjacent to the Big Lake field, in Reagan county, and McCamey, in southwestern Upton county. Now the town of Wickett, on the Texas & Pacific railroad, is to be a base for operations of the Southern Crude Oil Purchasing Co., which took over Winkler county acreage and operations from Westbrook et al, after the last mentioned had drilled the Hendricks discovery well several months ago. The new town, which is east of Pyote, Ward county, is named after Fred H. Wickett, chairman of the board of the Pan American Petroleum & Transport Co., parent corporation of the Southern Crude Oil Purchasing Co., Southern Pipeline Co., and others. Wickett is the railroad terminus of an 18-mile pipeline from Hendricks well production to tank car loading racks on the Texas & Pacific, now under construction.

* * *

OPERATIONS of the Tidal Oil Co. of Texas and the Associated Oil Co., in the Lone Star state, are now being consolidated under the management of J. H. Jenkins, vice president, of Fort Worth. The two companies, which were brought under common ownership by the Tidewater-Associated merger in the spring of 1926, have heretofore been operated separately. Texas is the only state where both companies had producing interests at the time of the merger, and even here they did not operate in the same districts.

Tidal of Texas, in its wildcatting program, recently purchased outright a half interest in 6000 to 7000 acres of the John Scharbauer ranch, in Ector county, from the Maxwell & Turman interests. An average price of about $20 an acre is said to have been paid. The acreage is in the northwest trend from the Ector county wildcat of J. S. Cosden, Inc., on the Connell ranch, which has made shows at various depths below 3000 feet for several months and which promises to be finally completed for a small discovery well. Tidal, in partnership with Maxwell & Turman, owns important acreage in the University pool of Crane county.

* * *

IRA G. YATES, Pecos county, Texas, rancher, on whose land the Mid-Kansas and Transcontinental partnership brought in two "gushers" at the 1000-foot level, is building a 16-room hotel and restaurant at the junction of the Pecos river and the main road to the wells. Yates explains the venture is primarily to afford accommodations for workers developing oil under his land and not for financial gain, although no doubt it will be made to pay its own way.

Interests in Yates ranch royalty as now constituted are divided among Ira G. Yates, one thirty-second; Texas common school fund, one-sixteenth; Peerless Oil & Gas Co., of Indiana, Pa., and Brown Brothers of San Angelo, in smaller amounts.

Lightning Protection System Adopted To Prevent, Not Guide, The Stroke

By Col. E. H. Wilcox
Chief Engineer, Pan American Petroleum Co., Los Angeles
Written Exclusively for National Petroleum News

THE disastrous oil fires occurring in the spring of 1926 turned the minds of all oil men in the direction of increased protection for oil storage from the hazards of lightning. California had so long enjoyed a practical immunity from damage of this kind to its reservoirs that a sense of false security had been built up in the minds of many operators.

This was completely dispelled by the events of 1926, with the result that all of the major companies interested themselves in investigating proposed methods of lightning protection, in order that the future hazards might be reduced to a minimum.

The Pan American Petroleum Co., with its large concentration of storage in the vicinity of Watson, Cal., included in which is the Lomita reservoir, the largest oil storage reservoir in the world today, with a capacity of over four million barrels, early felt the need of some protection. We felt that our storage reservoirs were to a large extent safeguarded, because the invariable practice of our company, long before the occurrence of these fires, had been only to use earth storage for heavy residuum fuel oils of high flash point, so that there was no explosive mixture in the space above the oil.

Frequent analyses of air taken from above the surface of the oil, and from beneath the roof, showed that at no time was there a concentration of vapor to cause either an inflammable or explosive mixture; hence, the danger of fires from secondary discharges was almost completely eliminated. These secondary discharges probably cause more numerous fires and explosions than do primary strokes. There would still remain, however, the hazard of a direct stroke of lightning which might have fired one of the reservoirs.

EVERY existing or proposed system was passed in review, with a view to selecting that which best fitted our needs. The one finally selected is that known as the Cage system of lightning prevention, being the invention of John Milton Cage, 2708 Moss Ave., Los Angeles who is the holder of all patent rights.

All other systems of lightning protection operate on the theory of offering a path, such as a tower or lightning rod for the discharge of the cloud to earth, on the theory that such a tower will attract to itself the direct stroke of lightning and pass it harmlessly to ground through proper conductors, and

Type of steel tower used in the Cage system erected at Pan American reservoir No. 1

in so doing will protect an area in the immediate vicinity of the tower from receiving this direct hit.

This the single tower may be expected to do, though there is much difference of opinion as to the radius of protection afforded (our own experiments in this direction are referred to later on); but it does not take care of secondary discharges which may occur in the vicinity of the tower, and which may be expected to be stronger as the base of the tower is approached.

The Cage system of lightning prevention differs from all others in its basic theory. It proposes, not to catch and divert the stroke when it occurs, but to actually prevent the occurrence of the stroke by gathering up the induced charges on the ground and on the reservoirs and tanks as rapidly as they are imposed thereon, whether by the influence of the charged cloud, or brought down in the charged raindrops, and to release this charge by ionization over a time and space interval, returning this charge direct to the cloud and so reducing its potential, and hence its ability to discharge, by breaking down the air dielectric intervening between cloud and earth.

IN order to understand the theory of the operation of the Cage system, it is necessary to know something of the formation of charges in the clouds themselves. It is no magic process which suddenly dumps an immense charge of electricity out of nowhere into the cloud. The charge therein is built up by a definite process, and one which takes an appreciable time interval for its operation. The uprushing currents of air in the cloud cause a separation of charge.

This is done, in all probability, partly by sub-division of water particles as they are broken up by the air currents in the cloud, partly by a jet action of these currents, partly by the friction of the passage of the air over the water particles. All of these probably act together in varying degrees to cause a separation of the positive and negative elements in the cloud, resulting in what we know as a "charged cloud."

The cloud usually retains the negative particles, while the positive are frequently brought to earth with the rain. In any event, the presence of a charged cloud itself imposes by influence an equal charge of opposite potential on the ground. When this difference of potential between the charges in the cloud and the charge upon the ground exceeds the air resistance, it breaks through, and a flash of lightning ensues.

Simultaneously, with the occurrence of this flash of lightning, or primary stroke, there may occur numerous secondary discharges or sparks of lesser magnitude in or among objects in the vicinity of the primary discharge. The explanation of these secondary discharges is that prior to the discharge of the cloud in the lightning flash, the ground and all objects thereon within the sphere of influence of the cloud are completely charged with the ground potential.

THIS ground charge is bound by reason of the existence of the charge in the cloud, but seeks to liberate itself, restoring electrical equilibrium, simultaneously with the primary discharge. If these charges are provided with unbroken paths of good electric conductivity and low resistance into ground, they follow these paths and the charge is released without spark. On the other hand, if there be any break in the continuity of these paths or if a zone of high resistance intervene, then the charge will spark across its nearest line to ground.

These sparks may vary in length from the infinitesimal to several feet, depending altogether on the circumstances in each individual case and the distance from the center of primary discharge. In any event, the secondary spark,

whether small or great, is a source of grave danger, being probably responsible for more fires than are primary discharges. Should this spark, no matter how small, occur in the presence of any inflammable or explosive gases, disaster follows immediately.

This incomplete picture of the nature of lightning discharges is necessary to enable the non-technical reader to understand the action of lightning. Every lightning protection system prior to the advent of the Cage system proposes to prevent the damage done by a lightning discharge by guiding and controlling the direction of the flash, conducting it to ground along a prepared path where it will do the minimum of damage, although this controlled direction does not in any way affect the number, position, or intensity of secondary discharges.

The Cage system aims at the reduction of the charge in the cloud and on the earth so that no discharge takes place at all.

THIS result is achieved by making use of the recognized principle of dissipation of electrical energy by ionic discharge. It has long been known to scientists that a charged point brought into proximity to a plate charged with the opposite potential, will give up its charge to the plate, thereby neutralizing both point and plate. When this discharge becomes rapid, it becomes visible to the eye and is then called Corona discharge. It has also many popular names, St. Elmo's light being perhaps the best known. This discharge, however, reaches a high value before becoming visible to the eye.

The duration of a lightning flash is extremely brief, lasting as short a period as one one-thousandth (.001) part, or even less, of a second. Into this inconceivably brief time is compressed the entire energy of the discharge, with the result that there is an exceedingly high momentary intensity. This discharge is also strictly localized in space, taking place along a relatively confined channel. These two concentrations in time and in space account for the high intensities of the power of the lightning stroke.

There is a great popular misconception as to the actual power in a stroke of lightning, due to its spectacular effect, to its apparently uncontrollable and little understood nature, and to the disastrous results which occasionally follow. This is not a proper basis on which to judge. A stroke of lightning may split a tree—so will a single stick of dynamite. A stroke of lightning may fire a barn—so will a match.

A stroke of lightning may kill a man or an animal—so will a 38 calibre bullet. In our estimate of the power of a lightning stroke, we must not be misled by the consequences which may result from that stroke. The period of discharge of a cloud, as just stated, is approximately one one-thousandth part of a second.

THE period of building up this charge in the cloud will vary with the intensity of inter-cloud action, being from 50 seconds to perhaps five minutes or even longer. Assuming that the cloud has sufficient energy to recharge itself in 50 seconds, it will be seen that its charging period is 50,000 times as long as its discharging period. It follows that if the charge can be handled as fast as it is generated, and not allowed to accumulate to the breakover point, that only very small amounts of energy need be handled in a given unit of time.

The Cage system proposes to make use of this time element by discharging the ground to the cloud simultaneously with the charging up period therein, so that at no time will the cloud be able to build up a potential which shall be great enough to cause a lightning discharge.

The discharge of energy from a point, or a series of points, varies directly with the potential difference between plate and point, and inversely with the distance between them. This ratio we have not yet expressed in a definite formula. It does not follow a straight line formula and our researches have not yet progressed to a point which would justify us in even suggesting a formula which would meet all observations.

They do, however, fall into the order of a well regulated curve, with the discharge rising more rapidly as the distance decreases or the gradient increases, though apparently less rapidly than the square of the gradient. The natural action, then, of a properly proportioned series of points arranged in the presence of an electric field under the influence of a charged or charging cloud overhead, will be that as the potential begins to build up in the cloud, a slow but steady discharge of ground potential back to cloud will take place.

UNTIL such time as this rate of discharge balances the charging rate of the cloud these potentials will rise. This rise of potential in turn means an accelerated rate of discharge from the earth, until equilibrium is established, at which time the discharge of current from the earth to the cloud will equal the charging rate in the cloud itself. When this point is reached, equilibrium will be maintained, and at a potential so low that there will be no possibility of a stroke of lightning from cloud to earth.

In practical construction, a reservoir or other area to be protected is surrounded by a cordon, or ring of wires, at a suitable height above the object to be protected, and completely surrounding this area. In the installations now being built by the Pan American Petroleum Co., this cordon of wires consists of three parallel strands of a special barbed wire, arranged in a horizontal plane and supported on steel towers about 80 feet above the level of the reservoirs and arranged as near thereto as circumstances permit. In no case however, is any part of the wire or structure over the reservoir itself. Laboratory experiments show conclusively that the charge is removed from within a completely enclosed circuit of wires, but that a short distance outside this circuit the ground charge is not materially affected. They also show that to protect three sides of a square removes but a small portion of the charge from within. It is not until the circuit is completed that protection is afforded.

An essential element of the Cage system is in providing means for rapidly conveying ground potential to the wires, in order that it may be returned by dissipation to the cloud. This is secured by bonding every part of the structure to the dissipating wires and by properly grounding into permanent ground water at frequent intervals. So important do we regard this that we are carrying many of our ground connections to a depth of 70 or 80 feet, in order to insure a proper grounding.

A long continued series of experiments were conducted to determine unit dissipation values for both isolated points and for barbed wire, which seemed the most economical way of introducing a large number of points into an electrical field in a desired place. These tests showed dissipation values in excess of 50 microamperes for an isolated point and in excess of 400 microamperes for a system of three parallel wires properly spaced. This last figure of 400 microamperes, which all converging tests show to a safe minimum of expectation, has been used as a basis of all our computations. I confidently expect that this figure will rise to twice that value before actual discharge can occur.

A CLOSE analysis of the best authorities and a study of the work done by Dr. George Simpson at Simla, India, by Norinder in Sweden, and other investigators, leads us to the belief that the charging rate of a cloud cannot exceed 40 microamperes per acre of cloud surface, and that provision for neutralizing a cloud one mile in diameter will be ample. Using these figures, which we believe to err on the side of conservatism, we find that a discharge of 20,000 microamperes (.02 amps) will balance the charging rate of a cloud one mile in diameter, or in other words that 50 lineal feet of a properly designed, balanced construction is sufficient to effect this discharge.

It would not, however, be a safe deduction to say that an object is entirely protected by 50 feet of system erected in its vicinity. There must be proper distribution of wires to effect the most advantageous discharge to the clouds. Each individual problem must be a matter for individual planning by those who have studied and are familiar with the details of the system. Properly constructed, we have no hesitancy in expressing our belief that the Cage sys-

tem offers a complete protection from the hitherto uncontrollable effects of lightning.

We have conducted a series of experiments to test the protective radius of steel towers or lightning rods, as controlling the position of direct or primary strokes, and to determine the zone of protection, if any, which can be ascribed to such a tower. We find a rather well defined ratio between the height of the cloud in relation to the tower, and the radius of this zone. With the cloud height six times that of the tower (corresponding to a 900-foot cloud, and a 150-foot tower) we get strokes within a radius of 1 tower height. With the cloud 8 tower heights we get strokes within a radius of about 1.25 to 1.3 tower heights. This corresponds with a cloud at about 1200 feet in relation to a 150-foot tower. With a greater cloud height this radius become greater. Inasmuch as the zone of maximum danger from charged clouds varies from approximately 800 to 1000 feet lower level, to approximately 3000 feet upper level, it would seem that no greater protective radius than one tower height could reasonably be ascribed.

Our original tests were made with common barb wire, but a special barb wire made to our specifications gave much better unit values for dissipation, in addition to superior strength. This wire is galvanized after the points are in place to prevent rusting or loosening of the points, and to secure better electric conductivity.

In working out the details of the system, and in conducting all of the experiments, both qualitative and quantitative, which have led to our conclusions, the inventor and the engineering staff of the Pan American Petroleum Company have been ably assisted and guided by Dr. Alfred W. Simon, National Research Fellow, and by the engineering staff of the testing department of the Southern California Edison Co.

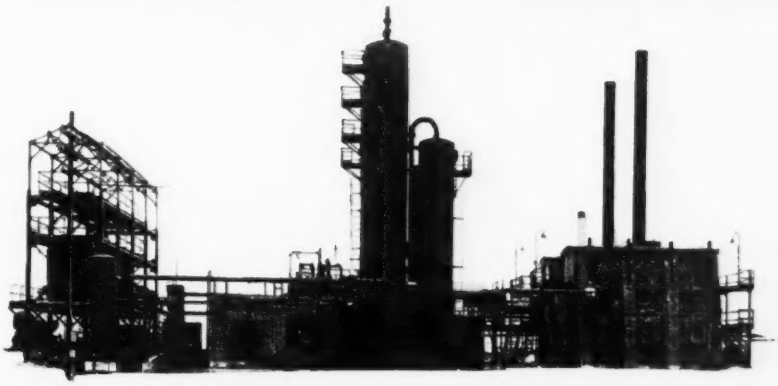
B. N. Broido Dead

NEW YORK, Mar. 4.—The death, Feb. 10, of Benjamin Nikolas Broido, chief engineer of the industrial department of The Superheater Co., New York and Chicago, marks the passing of one well known in this country and abroad for his work in the power plant engineering field.

He was a designer of steam superheaters and heat exchange apparatus and had filed over 75 applications both here and abroad for boilers, superheaters, economizers, heat exchangers, pipe stills, etc.

ELWOOD, IND.—Greasing service and equipment has just been installed at the No. 2 station of the Elwood Oil Co. here. Two 15,000-gallon storage tanks have also been added to the main bulk plant here, giving the company total storage of 100,000 gallons, according to H. R. Orbaugh, secretary and treasurer.

SIL-O-CEL
HEAT INSULATION



In The Argentine

THESE Cross Cracking Units were built for the Argentine Government Oil Refinery at La Plata, Argentina, by the Bethlehem Steel Company. C. B. Roberts Engineering Company of Bethlehem, Pennsylvania and New York City are the designers of the plant.

Sil-O-Cel C-22 Brick were used to insulate the base and side and end walls of the furnace, and Sil-O-Cel Plastic Cement and block to insulate the reaction chambers, towers and large pipe lines.

Whatever the job to be done, and wherever it is to be done . . . . Sil-O-Cel insulation best meets the demands for economy and efficiency. Sil-O-Cel is used by the leaders in every industry because it is a good investment that pays fuel saving dividends, year after year.

Complete recommendations for the insulation of any type of equipment will be sent on request. Write our nearest Division office listed below.

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New Equipment for Plant Improvement

Personal Notes of the Manufacturers

National Petroleum News

Aluminum Co. of America, New Kensington, Pa., has put out a booklet entitled, "Aluminum Paint, the Coat of Metal Protection." The book tells how the aluminum powder or flakes are made, discusses vehicles with which the aluminum is mixed, application of the paint on tanks, tank cars and so on and gives comparative evaporation loss figures from gasoline stored in tanks painted in various colors, showing the evaporation reducing properties of aluminum as compared with other paints. The booklet is well illustrated with photographs showing tanks, tank cars, absorbers and other equipment used in the oil industry coated with aluminum paint.

* * *

Hardie Manufacturing Co., Hudson, Mich., is putting out a car-washing machine for use at service stations that it is said will deliver 12 gallons a minute of water or cleaning solution under 300 pounds pressure. Features claimed for the washer are: Perfect self-lubricating system; silent chain drive running on steel sprockets; die-cast, removable bearings; improved plungers; adjustable motor base which fits any size motor; larger gears; long or short gun as desired. The gun is controlled and operated by one hand. The machine is mounted on a pressed steel stand and is made in one-gun to six-gun capacities.

* * *

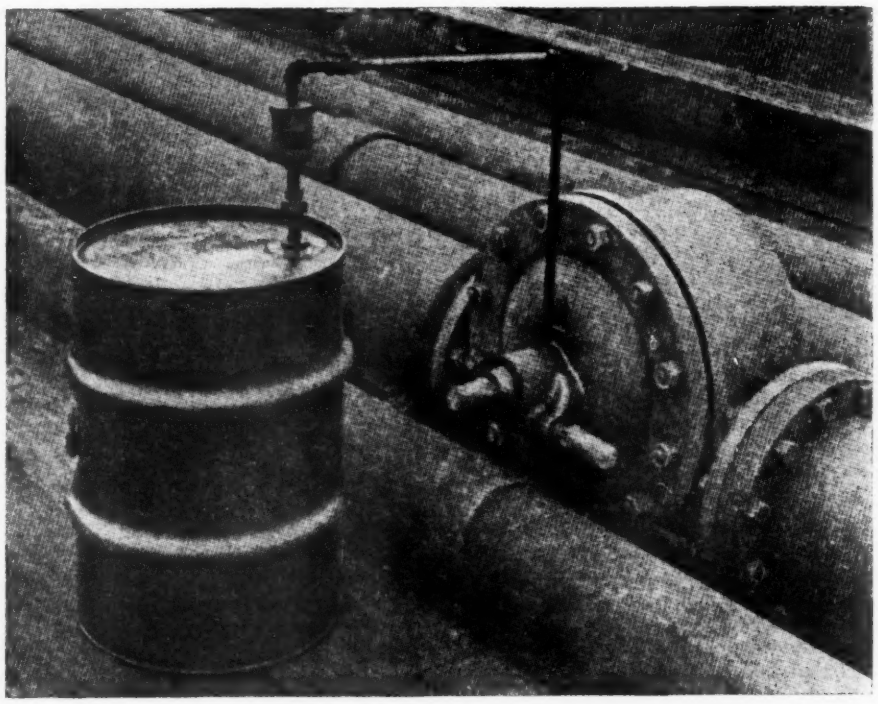
William A. (Billy) Knapp, well-known to hundreds of jobbers, was elected vice president of the Butler Manufacturing Co., Kansas City, at a directors meeting Feb. 17. Fred A. Rufi was elected secretary. Billy Knapp was formerly secretary and Mr. Rufi assistant first vice president. Mr. Knapp began work as secretary to C. R. Butler 16 years ago and Mr. Rufi as cost clerk 18 years ago. Both will handle their former duties in their new positions, Mr. Knapp in charge of sales and advertising and Mr. Rufi in charge of purchases.

* * *

J. A. Campbell, consulting gas engineer, Long Beach, Cal., and manufacturer of the Campbell oil froth absorber, announces he has established a branch office in Tulsa in charge of R. C. Flournoy, Jr., well known as a salesman in the oil country. The mail address of the office is Box 3336, Tulsa.

* * *

The Mars Co., Aurora, Ill., is putting out the "Boss" yard pump, designed to meet the needs of individual gasoline and kerosene buyers. It is placed in the yard like a gasoline pump at a service station.



Device for taking continuous sample of oil from pipe line developed by Max B. Miller Co., and called the Samplitt

Max B. Miller Co., New York, is putting out an ingenious device for sampling oil flowing through pipe lines. The name is the Samplitt. It was partly developed by the General Petroleum Corp. in California, being the invention of one of this company's former engineers. It has been used by the General, Max Miller says, and is now being adopted by the Standard of New Jersey, Atlantic Refining Co. and others.

The Samplitt consists of an impeller, a four-way cock, a set of patented gears and a cylinder and piston, all contained in a circular steel housing which is flanged into the pipe line as shown in the accompanying cut. The whole mechanism is operated by the stream flowing through the line.

The oil striking the blades of the impeller, causes it to revolve continuously like an undershot water wheel. The impeller is connected by speed reducing gears to the fourway cock which in turn is connected with the sample line with its lookbox which delivers into a can or drum.

The revolution of the impeller causes the four-way cock to revolve slowly. When the four-way cock is in one position, the oil is forced into the cylinder, filling it and pushing the piston back. With the four-way cock in the other position, the oil in the cylinder is ejected through the sample line and the piston pushed to the opposite end of the cylinder.

Inasmuch as the sample is collected from a point of great turbulence, it is stated that a representative and uniform sample is obtained. It is stated that aside from taking continuous samples from a crude receiving line, loading line or any kind of pipe line, the Samplitt can be used for feeding in accurately predetermined quantities of sulfuric acid or other chemicals into the distillate in a continuous treating system. The speed at which it operates can be regulated.

* * *

E. M. Smith, president of the Emsco Derrick & Equipment Co., Pacific National Bank of Los Angeles and a number of other corporations on the west coast, announced this week the formation of a new company to be known as the Emsco Fire Brick Co., a $300,000 corporation. The new corporation has leased 6½ acres of land, where buildings are to be erected and machinery installed for the manufacture of fire brick of all kinds, specializing in brick for the oil industry.

Mr. Smith is president of the new company, with James E. Long as vice president and Stewart Finley, general manager and secretary. Construction work is to start at once.

Union Oil Co. Increases Sales, Profits, Output and Properties in 1926

By Roger B. Stafford

N. P. N. STAFF WRITER

CLEVELAND, Mar. 4

NET earnings of the Union Oil Co. of California were the largest in 1926 of any year since the organization of the company in 1890. Net profits after all charges and reserves totaled $11,831,619, or $3.12 a share on the average amount of capital stock outstanding during the year. The 1925 net profits were $10,513,206 or $2.78 a share on the average outstanding stock. Stock is $25 a share par. Gross sales were $79,943,751, compared with $74,378,772 in 1925.

The company's production amounted to 16,066,842 barrels. This volume is subject to certain royalties which may make the net interest of the company about equal to the 1924 production but larger than the 1925 production which was 15,360,640 barrels before royalties and 14,036,952 barrels net. The company's largest production in a year was 18,808,813 barrels in 1923. Comparative production figures, gross for last year and net for the preceding 12 years, follow:

1926	*16,066,842	1919	8,705,447
1925	14,036,952	1918	8,271,084
1924	15,036,952	1917	7,430,154
1923	18,808,813	1916	6,081,015
1922	12,453,846	1915	5,301,110
1921	10,217,835	1914	5,534,239
1920	8,683,608		

*Subject to royalties.

Early in February the company had daily average production of about 49,000 barrels, President W. L. Stewart reported to stockholders. It also had shut in 151 wells with potential production of 12,500 barrels daily average. A year before the company had shut in 157 wells with potential production of 13,000 barrels daily.

UNION produced 1,129,000 barrels of crude in the Fort Collins area of Colorado compared with 424,000 barrels in 1925. Developments in 1926 included the proving of the North Poso Creek field in Kern county, Calif., and deeper sands in Orange county and the Richfield district. On Dec. 31 it had 41 strings of tools running, 21 in southern California, six in the San Joaquin Valley, 12 in Colorado and Wyoming, and one each in the Ventura and Santa Maria fields of California.

Union contracted to test 880,000 acres of concessions held by the Pantepec Oil Co. in Venezuela on a half and half basis, the Union to advance $3,500,000 for the tests and later development if the area is proven productive.

Union was a large purchaser of crude, and its own production, purchases, and other receipts amounted to 30,926,367 barrels last year, or 14 per cent of all oil produced in California.

The San Luis Obispo and Stewart tank farm fires in April destroyed 7,824,224 barrels of oil. The company's loss after crediting insurance monies and depreciation has amounted to $714,161 so far and the total loss with unadjusted claims estimated is expected to amount to $784,455.

Last year Union relinquished 121,000 acres in New Mexico. At the end of the year it still held in fee or under lease 669,300 acres besides the 50 per cent interest in the Pantepec concessions in Venezuela. Its acreage was distributed as follows:

	Fee	Leasehold
California	170,222	21,639
Colorado	19,593	11,816
Wyoming	720	13,083
Texas	.....	2,051
Utah	.....	3,960
Mexico	272	198
Colombia	425,746	.....
Total	616,553	52,747

REFINING capacity was increased by addition of four Cross cracking units with a daily charging capacity of 10,000 barrels. The Brea refinery which was destroyed in the April fires has been rebuilt, Mr. Stewart wrote. More tankage was installed at the Los Angeles and Oleum refineries.

Natural gasoline plant capacity was increased to handle 26,000,000 cubic feet more gas daily. Capacity of absorption and compressor plants was 116,000,000 cubic feet a day at the beginning of February, when the report was written.

Bulk marketing facilities were expanded but the company reported owning 10 fewer service stations at the end of last year than at the end of 1925. Mr. Stewart stated 28 bulk and six service stations were opened during the year, indicating that some stations were closed. Motor and tank car equipment was increased and one tankship, the Radiant, was added to its fleet.

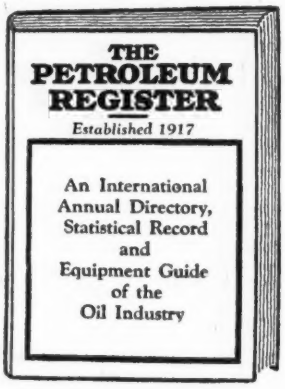
THE company has made a slight alteration in its balance sheet by setting up the depreciation and depletion reserves among the liabilities instead of deducting the reserves from the total property valuations. This new arrangement conforms with the uniform general balance sheet adopted by the American Petroleum Institute. It also has added in the appreciated values of some of its proven production properties so the "Oil lands, rights and leases" account shows an increase of more than $53,000,000 over the year. Total assets under the revised accounting plan are shown to be more than double total assets Dec. 31, 1925.

On Dec. 31 Union's current assets amounted to $56,324,451, or 6 to 1 over current liabilities which were only $9,590,442. Its current assets were more than its entire indebtedness including the mortgage debt. At the end of the year its earned surplus amounted to $19,249,805 and surplus arising from appreciation of proven oil properties to $47,217,903.

Its inventory Dec. 31 totaled 18,030,164 barrels of both crude and refined oils, a decrease of 8,842,100 barrels from the Dec. 31, 1925, inventory, of which contraction more than 7,800,000 barrels was due to fire. The oil inventory was carried at $24,813,766, compared with $29,700,436 at the end of 1925. Among the other current assets was 10,200,000

Summary of Union's Operations, Expansion and Equipment in 1926

	1926	1925
Cost of drilling and field development	$ 7,493,350	$ 6,580,700
Additions to pipe lines	$ 653,375	$ 214,468
Additions to marine equipment	$ 305,366	$ 208,361
Additions to refinery, gasoline and gas plants	$ 4,644,635	$ 1,209,606
Additions to marketing equipment	$ 1,425,256	$ 1,887,039
Total expenditures for additions to properties	$15,196,900	$10,771,757
Wells operating or shut in, Dec. 31	781	617
Wells drilling or inactive	148	157
Production, subject to royalties, bbls	16,066,842	15,360,640
Trunk pipe lines, miles	500	504
Gathering lines, miles	351	343
Capacity of pipe lines, bbls. a day	245,000	275,000
Refining capacity, bbls. a day	100,000	90,000
Capacity of gasoline plants, thousand cu. ft. a day	116,000	90,000
Tank cars	630	608
Marine equipment, number of vessels	35	34
Capacity of marine equipment, bbls	974,700	960,700
Motor trucks	1,102	1,048
Other automobiles	931	856
Foreign and domestic bulk stations	329	303
Service stations	413	423
Sales for the year	$79,943,751	$74,378,772
Profit a share, on average no. of shares outstanding	$ 3.12	$ 2.78



The Petroleum Register 1926

is now off the press, with hundreds of new listings. It combines in one book the following:

A comprehensive directory of equipment used in the oil business, with names and addresses of manufacturers and dealers—

Refiners — officers, capital stock, properties, summary of latest financial report—

Producers—thousands of companies engaged in producing and exploring for oil—

Marketers and jobbers—compounders, grease and natural gasoline manufacturers, pipe line companies, drilling contractors and foreign companies.

Two new features — an alphabetical directory of executives of leading oil companies and their positions. Reproductions of lease forms used by producers and prospectors.

Also Statistical Section; Refinery and Natural Gasoline Plants; Trade names of leading brands of petroleum products; Secretaries and headquarters of oil associations.

National Petroleum News
806 Caxton Bldg.
Cleveland, Ohio

Here is my check for $10 for the June 1926

PETROLEUM
REGISTER

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Income Accounts of Union and Owned Companies

	1926	1925	1924	1923	1922
Operating profits	$ 29,457,978	$ 27,082,279	$ 27,334,032	$ 24,357,393	$ 25,419,981
Expenses, taxes, etc.	4,621,849	4,392,099	4,415,712	3,237,115	3,691,023
Operating income	$ 24,836,129	$ 22,690,180	$ 22,918,320	$ 21,120,278	$ 21,728,958
Interest	760,105	736,649	904,860	776,394	429,353
Deprec., deplet., etc.	12,244,495	11,440,325	11,309,412	12,311,235	10,563,730
Net profits	$ 11,831,619	$ 10,513,206	$ 10,704,048	$ 8,032,649	$ 10,735,878

Balance Sheets of Union and Owned Companies as of Dec. 31

	1926	1925	1924	1923	1922
ASSETS					
Oil lands, leases	$149,281,516	$ 95,572,755	$ 95,300,637	$ 94,246,744	$ 55,592,853
Wells and Development	46,687,003	28,707,641	21,551,518	19,700,347	16,818,558
Gasoline plants	4,511,511	2,777,405	2,316,762	2,150,491	1,598,760
Pipe lines, storage	15,397,548	16,249,277	16,144,525	15,891,706	12,794,089
Marine equipment	13,170,205	13,488,366	13,508,301	13,699,172	12,868,974
Refineries	16,279,968	13,418,285	12,724,106	12,540,688	11,019,064
Market stations	23,218,446	22,004,833	20,464,422	17,829,717	14,432,795
Total property	$268,541,107	$187,218,562	$182,010,270	$176,058,895	$125,125,041
Deplet., deprec.	.....	84,403,310	76,511,159	67,122,946	43,947,754
Net property	$.....	$102,815,252	$105,499,111	$108,935,949	$ 81,177,287
Investments	715,399	997,925	1,046,886	929,487	785,912
Cash	8,406,949	6,899,349	4,733,090	5,141,478	4,716,347
U. S. certificates and bonds	10,200,000	7,000,000	5,500,000	3,500,000	7,305,000
Bills, accounts receivables	8,902,794	7,581,566	6,945,342	7,457,829	8,478,917
Crude, refined oil	24,813,766	29,700,436	26,242,595	21,155,212	19,969,046
Material, supplies	4,000,943	3,826,663	4,587,747	4,997,806	4,537,628
Deferred charges	545,271	598,174	658,633	763,755	1,195,788
Total	$326,126,229	$159,413,365	$155,213,405	$152,881,516	$128,163,921
LIABILITIES					
Capital stock	$ 94,715,450	$ 94,506,225	$ 94,500,000	$ 90,000,000	$ 90,000,000
Employes' stock subs.	290,625	514,225	.....	.....	.....
Bonds	22,440,500	24,100,500	20,110,500	24,259,000	18,468,000
Purchase oblig.	317,000	495,822	902,402	1,520,402	563,206
Accounts payable	5,406,215	4,677,317	5,973,855	4,733,658	6,672,994
Taxes, etc.	3,837,219	3,066,251	2,976,993	2,206,787	2,224,963
Accrued interest	347,008	353,424	305,684	372,941	270,184
Insurance, conting.	939,468	575,172	589,798	656,734	741,893
Deprec., deplet., drilling cost	131,365,036	.....	.....	.....	.....
P. & L. surplus	66,467,708	31,124,430	29,794,173	29,131,994	9,222,680
Total	$326,126,229	$159,413,365	$155,213,405	$152,881,516	$128,163,921

in U. S. government and other bonds and $8,406,949 cash.

In the last 27 years Union has paid $71,378,577 cash dividends and stock distribution of a par value of $59,745,993, totaling $131,124,570 or 14 per cent on the average outstanding capital stock. To the surplus in that time has been added $65,218,199, equivalent to 7 per cent on the average outstanding capital stock.

Mr. Stewart said shipments of California crude and products to the Atlantic, Gulf and European ports declined 8 per cent last year from the 1925 shipments.

The company's payroll last year amounted to $17,815,352 and in 1925 to $15,722,050. On Dec. 31, it has 8927 employes compared with 7981 Dec. 31, 1925.

Jobber Tells His System of Barrel Cleaning

CHICAGO, Mar. 4.—The method of cleaning oil drums, used by the Lindsay-McMillan Oil Co. of Milwaukee, was published in a recent issue of The Thunder Bird, organ of the Wisconsin Independent Oil Jobbers' Association, as follows:

"The empty drums are placed on a long rack. A hose is inserted into each barrel and a mixture of hot water and caustic soda is sprayed into the barrel until it is thoroughly cleaned. The barrel is then placed in a room heated to 100 degrees Fahrenheit. The barrels are thoroughly dried in this room.

"After drying they are taken to the paint spraying machine, painted very quickly and wheeled off to dry. Cost of painting is very small.

"In inspecting barrels after cleaning one is impressed by the thoroughness of the job. So clean is the outside and inside of the barrels that you can rub your finger over it without a bit of rust or dirt showing on the flesh. According to R. Salter, marketing manager, this system has worked very satisfactorily and completely eradicates all grease, steel filings, etc., which may be lodged in the rims of the barrel."

Cal. Stocks Gain in January

LOS ANGELES, Mar. 4.—Total stocks on the West Coast increased 2,714,831 barrels in January, according to the San Francisco office of the American Petroleum Institute.

Stocks of heavy crude, including fuel, increased 682,580 barrels to 89,390,079 barrels. Stocks of refinable crude gained 341,436 barrels to 31,176,493 barrels. The total of refinable crude in storage at end of January shows a decline of 12,625,584 barrels from a year ago. Gasoline storage increased in January 1,696,298 barrels to 13,369,861 barrels, an increase of 3,116,925 barrels compared with a year ago. Total stocks on Pacific Coast have decreased net 10,067,374 barrels since January 31, 1926.

CHICAGO, Mar. 4.—Sheldon Clark, vice-president of the Sinclair Refining Co., has been reappointed chairman of the athletic committee of the Cherry Circle of the Chicago Athletic club.

Visiting Around the Refineries

By Paul Truesdell

National Petroleum News

Again, The Automobile Engine is the Judge

SAMUEL P. MARLEY, Donald R. Stevens and W. A. Gruse of Mellon Institute did a valuable piece of work testing anti-knock value of motor fuels, which they presented to the automobile and oil industries at the recent meeting of the Society of Automotive Engineers in Detroit. This paper was published on page 167 of the March 2 issue of National Petroleum News.

Perhaps the most valuable of their findings is summed up in their first conclusion, "The authors do not know of any dependable method for determining the detonating tendency of motor fuels except that of direct engine tests." And they tried about every method.

Their further conclusions were; that the chemical analysis method of testing anti-knock value proposed by Egloff frequently does not check with performance in the engine and that Ricardo's data as to highest useful compression ratio and as to relative anti-knock value of aromatics naphthenes and olefins does not always check with results in the engine; that while cracking probably offers the readiest way for most refiners to produce anti-knock fuels, it does not follow that all cracked gasolines constitute satisfactory anti-knock fuels, and that an agreement as to detonation standards is desirable.

The Insurgent in Refining Technology

IN politics the radical is often dangerous. In science he fills a useful place.

This is particularly true in the refining business. Technologists, like everybody else, are likely to get into grooves if not ruts. Once principles are discovered, rules laid down, and beliefs established, it is human nature to fall into the way of thinking that here is the way to do a certain thing, and keep doing it that way. C. F. Kettering of General Motors has said one of the worst barriers to progress is "that we know so many things that aren't so."

The radical is always jolting some established belief, some established method. He is always kicking complacent shins, poking an elbow into placid ribs. Sometimes he is right. Nearly always he is partly right and more solid men go ahead and make valuable contributions to the art based on projects or ideas that the radical started but could not finish. If he is utterly wrong, there is always in the technical world, unlike the political, a sufficient body of sane, conservative and soundly trained men to prevent his doing much damage.

He starts everybody thinking. And thinking gets results.

Store Motor Oils in Heated Building

EMPIRE OIL WORKS, INC., is building an addition to the filter house at its Reno, Pa., refinery, and doubling its capacity by installing six large filters. This was made necessary by the installation last year of a battery of Sharples centrifuges. The old filter house could not keep up with the machines.

The company also is erecting a building to house eight lubricating oil storage tanks. The building will be heated, keeping the oil always in condition for handling without having steam coils in the tanks. A statement from the company says while this is an expensive way of storing oil, it is of advantage because it prevents the oil coming in contact with direct heat as it does with steam coils in the tank and also prevents water from getting into the oil as sometimes happens from leaky coils.

The company also is putting in a 750-barrel batch still and condenser which will be in operation shortly.

Another Opinion on Sulfur in Gasoline

A LUDLOW CLAYDEN, technologist of the Sun Oil Co., Philadelphia, dropped into the office the other day when he was in Cleveland on a business trip. Mr. Clayden believes the sulfur tolerance in gasoline should not be widened. It is possible to start an argument on this point whenever two or more technologists get together.

He believes that widening the sulfur limit might easily lead to the putting out of gasoline that would form corrosive compounds and damage engines, particularly in cold weather when the average engine does not always get hot enough to boil off the vapors in the crankcase, even where the new crankcase ventilators are used.

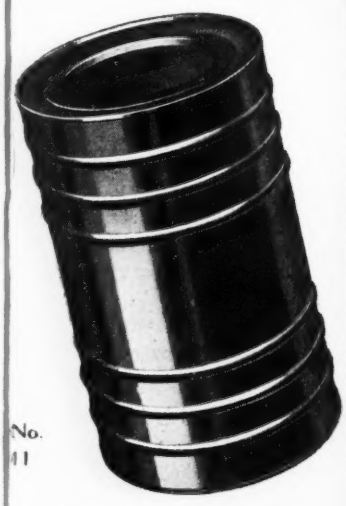
Sulfur, he says, is a nuisance in gasoline, whether for motor fuel, dry cleaning, paint thinner or solvent and the scientific remedy is to take it out, preferably out of the crude. No way exists to do this economically and it is expensive and troublesome to remove it from refined products, but he believes worth while. The only product in which sulfur is good is in cutting oil used in threading pipe, says Mr. Clayden. For some reason not explained, cutting oil containing flowers of sulfur cuts cleaner and better threads on pipe than oil without sulfur. In screw cutting and other threading, sulfur makes no difference.

Barnsdall Plant Puts in Improvements

A NEW clay roasting furnace, capable of handling 93 tons of fullers earth a day, has just been put in operation in the Barnsdall refinery at Barnsdall, Okla., according to the February issue of "Barnsdall," the company's house organ. This tonnage just balances the company's need for clay for the filters. The same issue also states that a compounding plant has just been completed at the refinery. This plant, which can handle the packaging of 200 barrels per day, will put up B-Square products in drums, cans and cases for shipment.

A Record Made for Setting Up Stills

FOUR vertical Holmes-Manley stills were erected in one day (eight and two-thirds hours) at the Port Arthur refinery of The Texas Co., thereby breaking all previous records made in the installation of these stills, according to The Look Box, organ of the company's refining department. This feat was accomplished on Jan. 4. Thirteen men, under the leadership of Foreman R. L. Breaux, did the trick.



No. 11

100 Pound Grease Drum

The 100 pound grease container is made especially to be used with such standard make grease pumps as Marvel, Merit, Boe or Bennett. It is a giant for strength.

The 9″ friction cover is securely held in place by bolts. It can be furnished with 4 or 5 bolts, depending on the style grease pump to be used. In addition, a 2″ plug opening can be put in cover.

Benetco containers give you strength at satisfactory prices. Let us quote.

We also manufacture Steel Barrels— ALL KINDS

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BENETCO Steel Containers

Here & There

National Petroleum News

H. C. GEORGE

Director of the School of Petroleum Engineering, of the University of Oklahoma, Norman, Okla., who was elected a vice chairman of the Mid-Continent section of the American Institute of Mining and Metallurgical Engineers at its recent meeting at Tulsa. Mr. George will serve during the current year

R. D. Carpenter and C. T. West, of Carpenter & West, oil marketers of Hartford, Kan., spent Feb. 11 inspecting the lube oil plant and refinery of the Skelly Oil Co. at Eldorado, Kan. Three employes of the former company accompanied Mr. Carpenter and Mr. West.

* * *

A. C. VanHalst, who has been with the National Refining Co. at Kalamazoo, Mich., took charge of the Battle Creek division of the company on Feb. 1. Headquarters of the company are at Cleveland, O.

* * *

Artie Schmidt, formerly with the sales department of the Paragon Refining Co., Toledo, is now with Rome E. Goodwin, formerly vice-president of Paragon, in a carload marketing business in Toledo.

* * *

George C. Karb, Central Ohio Oil Co., Columbus, and for three terms president of the Ohio Petroleum Marketers' Association, is passing the winter in Florida.

* * *

R. E. Gerkins, Gerkins Oil Co., Day-ton, O., is in California. Walter Bell is looking after the Gerkins affairs in Dayton.

* * *

R. C. Heil, Commercial Oil Co., Cleve-land, is passing his vacation in Cuba.

J. P. Heil, vice president and general manager of The Heil Co., Milwaukee, Wis., is on a trip in the West Indies and Central America in the interests of the company's sales program. He first stopped at Jacksonville and Miami, Fla. From Cuba Mr. Heil will stop at several important seaports in Central America and then sail through the Panama Canal to Los Angeles and San Francisco.

In San Francisco Mr. Heil will be the guest of M. M. Kahn, who is the company's distributor for Heil dump bodies, hoists and tanks in California.

* * *

Homer H. Johnson, president, and James J. Johnson, vice president, of the Johnson Oil Refining Co., Chicago, left on Feb. 14 for Toledo, O. to inspect service stations recently completed. While in Ohio, they had planned to attend a meeting of the company's division managers, salesmen and local managers which was to be held at Mansfield, O. on Feb. 15.

* * *

E. P. Campbell, recently general su-perintendent of the Pure Oil Co. in Oklahoma, is now of the petroleum engineering staff of the Marland Oil Co. of Texas. Mr. Campbell, prior to joining the Pure Oil Co., was supervisor of the Rocky Mountain division of the U. S. Bureau of Mines.

* * *

Harvey Krueger, who formerly sold Whiz products in South Dakota, is now covering the northern territory for the Rhode Oil Co., Sioux Falls, S. D., distributing Champlin Refining Co.'s products. The Rhode Oil Co. was formerly the Penn Soo Oil Co.

* * *

George W. Taylor and M. A. Taylor, who operate a bulk and service station at Colby, Kan., and who are son and grandson respectively of Henry Taylor, Atwood, Kan., helped the latter to celebrate his 103rd birthday on Feb. 18.

* * *

C. R. Howard, of The Howard Oil Co., Mount Hope, Kan., has returned home after spending a month in the Wichita, Kan. hospital. Mr. Howard is much improved and hopes to be back at the office soon.

* * *

W. E. Beach, president of the Illinois Independent Oil Co., Lincoln, Ill., is spending the winter at Los Angeles, reports H. G. Beach, manager.

* * *

L. B. Riddle, vice-president of the Shaffer Oil & Refining Co., Tulsa, was recently called on a business trip to Los Angeles.

Anti-Knock Means Power

When an artillery gun is fired, two explosives are involved—one that propels the projectile forward and the other that explodes violently when the shell hits. These two types of explosives are comparable to knocking and anti-knock gasolines.

Anti-Knock gasoline burns evenly with *expansive* action—the same type of uniform force that *propels* the shell. When ignited in a cylinder, it exerts a quiet, non-detonating, even, powerful *push* on the piston head.

Gasoline that knocks, explodes like the striking shell—quick, sharp, dissipating energy.

Paraffin Hydrocarbons in gasoline explode violently under pressure, are notorious knockers and cause loss of power. Aromatic Equivalent Hydrocarbons, on the contrary, are smooth-burning, 100 per cent ANTI-KNOCK and generate maximum power. The percentage of each in gasoline determines, therefore, its anti-knock qualities.

Ask your present supplier about the Aromatic Equivalent Hydrocarbons in his gasoline. Compare it with ours. You'll find PARCO Gasoline rich in Aromatic Equivalents, non-detonating, powerful—a superior motor fuel.

PRODUCERS AND REFINERS CORPORATION

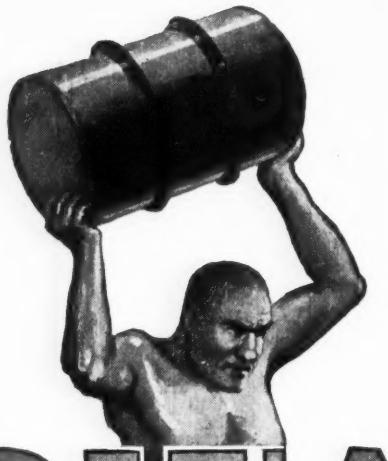
DENVER CHICAGO TULSA SALT LAKE CITY MEMPHIS OMAHA

PARCO

Anti-knock

GASOLINE

Our Refining Facilities at West Tulsa and Blackwell mean advantageous freight rates for Southwest and Central States jobbers. . . . . Our Modern Refinery at Parco was built to advantageously supply Northwest jobbers.



"DEFIANCE"

STANDARD

There is but one grade of Defiance Steel Barrels. The difference in price is governed only by the size, style or external design.

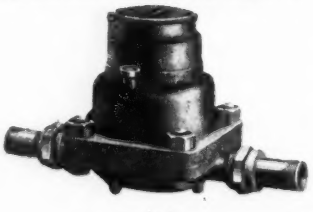
There is a uniformity of manufacture that is standard, too. Defiance Barrels are *all* good barrels. Every barrel in a shipment can be depended on.

A Defiance Steel Barrel is an accepted standard in barrel buying.

THE AMERICAN STEEL PACKAGE CO.

Defiance, Ohio

RELIABILITY COMES FIRST



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New Publications

The third revised edition of Industrial Oil Engineering, by John Rome Battle, is off the press. Since 1916 when the first edition of the book was written, this has been a standard work on the subject of lubrication, particularly industrial lubrication. Mr. Battle has had a mechanical engineer's experience with all types of machinery and has studied them particularly from the standpoint of their lubrication needs. He has done much work for oil companies in developing special lubricants for special purposes and has constantly preached the gospel that the oil salesman, to be successful in selling the "smoke stack" trade, must know not only the oils he sells but also the lubrication problems peculiar to the mechanical equipment used in each industry. The book should be useful to any oil man interested in lubricating oils and their use.

* * *

C. J. Tagliabue Manufacturing Co. of Brooklyn, N. Y., has just published the 20th revised edition of the New and Revised OIL MANUAL for Inspectors of Petroleum. This edition has been brought up to date and includes the A. P. I. Gravity Temperature Correction tables as revised and adopted by the U. S. Bureau of Standards, the U. S. Bureau of Mines and the American Petroleum Institute. Besides these new and official tables, the Manual includes 13 other tables and detailed procedure for conducting 132 routine oil tests.

The manual contains 120 printed pages with eight blank pages to be used as memorandum data sheets; its size is 5 x 8 inches. It fits the pocket and fits the field.

* * *

"Mathematics for Engineers," by Raymond W. Dull, research engineer of the Link-Belt Co., Chicago, is off the press. The book contains 780 pages. It is a mature explanation for practicing engineers of those principles, methods and phases of mathematics that are most used by engineers every day.

Simple numeric computations, algebra, geometry, trigonometry, differential calculus, integration and summation are covered so that the book includes practically every phase of mathematics used by engineers, and in such form that it is unnecessary for the engineer to work out intermediate steps to get what he is after. The price is $5.00.

Export Office Moved

WICHITA FALLS, Mar. 4.—Export purchasing offices of the Sinclair Refining Co. in the Mid-Continent field have been moved from Dallas to Wichita Falls. Office space has been obtained at 915 Hamilton building. W. A. Tracy will continue in charge of export buying for the district. The move was made so that he will be able to keep in closer touch with sources of supply in the Wichita Falls district.

STASO

LUBRICATING oil for the crank case is one thing. Transmission and Differential lubricant is another—and it's just as important. The talking points on STASO to car owners are:

"Your transmission and differential lubricant should be changed every 2,000 miles. Car manufacturers recommend it. In fact, it is just as important as changing the oil in your crank case. Because it does not show on your instrument board and is often neglected is the reason why you should get the best transmission and differential lubricant and take no chances with channeling gears and noisy shifting. "STASO is scientifically compounded especially for transmission and differential gears. It holds its body and requires less attention. It always lubricates in the transmission where the heavy strain comes, and it keeps your shifting differential in smooth, noiseless condition. It costs no more than ordinary lubricants and is worth twice as much."

Jobbers selling and featuring STASO are reaping extra profits from transmission and differential lubricants they never had before, besides getting more gasoline and oil sales from car owners who drive in to get STASO.

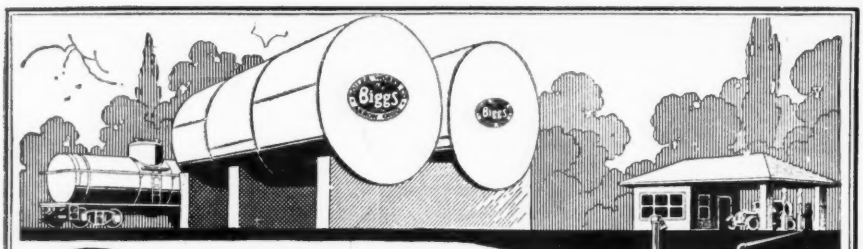
All members and visitors attending the National Petroleum Marketers' Ass'n and the Independent Oil Men of America convention at the Congress Hotel March 8th, 9th and 10th are cordially invited to visit our offices on the 20th floor, 332 S. Michigan Ave. — one block north of the Congress.

Keystone Oil & Manufacturing Division
Central Commercial Company
332 South Michigan Ave. *Chicago*

Let us send you complete information regarding STASO and tell you how we help you sell it. We have a STASO Plan that will fit into your local sales activities and make you real profits.

GASOLINE — FROM COAST TO COAST — INDEPENDENT — OIL — MOTOR OIL

TRANSMISSION LUBRICANT



The Biggs Boiler Works Co. Akron, Ohio

Bulk Storage and Station Tanks

FORTY years successful experience; plant fully equipped for fabricating plate up to 1½" thick. Your specifications and inquiries are invited.

Pressure Stills for Cracking Process - Fractionating Towers - Dephlegmating Towers, Bubble Towers - Heat Exchangers - Agitators - Steam Stills - Crude Stills - Condenser Boxes, Run Down Tanks - Blending Tanks - Hemispherical Tanks - Blow Cases - Acid Tanks, Compounding Kettles - Storage Tanks to 80,000 Barrels - Smoke Stacks and Breechings, etc.

THE BIGGS BOILER WORKS CO., Buchtel and Bank Sts., Akron, O.; 300 Madison Av., New York

GULF Refining Company

General Sales Offices

PITTSBURGH, PA.

District Sales Offices

New York, Houston, Atlanta, Boston, New Orleans, Tampa, Philadelphia

REFINERS OF OKLAHOMA TEXAS AND LOUISIANA

PETROLEUM

REFINED OIL
GASOLINE
NAPHTHA
GAS OILS
PARAFFINE WAX
ASPHALT

Fuel Oil--Lubricating Oils

CYLINDER ENGINE
CORDAGE

RED AND PALE PARAFFINE OILS

New Stations Built or Being Built

Berlin, Md.—Cross Roads Garage is building service station at Frankford, Dela., according to Raymond Magee, manager.

* * *

Carrollton, Mo.—R. C. Neal, Bowdry, Mo., has leased property here for filling station. White Eagle products will be handled.

* * *

Sheridan, Ark.—Edgar Shepherd, Shepherd Grocery Co. of Pine Bluff, Ark., will build filling station and ice plant here.

* * *

Happy, Tex.—Filling station will be built here by Mr. Scott, proprietor of a mercantile establishment at Vigo, Tex.

* * *

Columbia, Mo.—Mid-Continent Petroleum Corp., Tulsa, is seeking a site for bulk and distributing station here.

* * *

Ironton, O.—Refiners Oil Sales Co., Dayton, O., will begin construction of filling station here on Mar. 1.

* * *

Allen, Okla.—Herbert Perkins, Magnolia distributor, has purchased property here for filling station.

* * *

Madison, Wis.—Wadhams Oil Co will begin construction of its first filling station here soon.

* * *

Portland, Ore.—Richard Kivisto is completing service station at E. 45th and Glisan Sts.

* * *

Fremont, Neb.—W. H. Snyder purchased two lots for gasoline storage tanks.

* * *

Fargo, N. D.—Peter Burkhardt will erect filling station at Elm St. and Sixth Ave.

* * *

Haggard, Kan.—Bulk station is being erected here by Farmers Elevator Co.

* * *

Hot Springs, S. D.—Standard Oil Co. of Indiana will build filling station.

* * *

Burlington, Ia.—Blakeway & Beck seek permit for filling station.

* * *

Grand View, Mo.—G. W. Matthes will build filling station here.

* * *

Toronto, Kan.—Cy Tolman purchased property for filling station.

* * *

Morris, Okla.—John Cable & Co. completing filling station.

* * *

Dallas, S. D.—Continental Oil Co. will build filling station.

* * *

Beloit, Kan.—C. M. Day is building filling station.

ON THE LAZY BENCH

National Petroleum News

Made a Commedian Laugh

Here's one that Knute Rockne, famous coach of the Notre Dame football team told to Harold Lloyd during the making of "The Freshman."

"People in this country," said Rockne, "seem to have the idea that the Scandinavians are slow thinkers. That isn't so, and I can prove it. Back in Norway, an uncle of mine was running away from the sheriff. Nothing serious, you understand, just a slight misunderstanding. So he dashed into a little store and asked the proprietor to hide him. 'Just jump into this sack,' said the proprietor, 'and stay there until the sheriff leaves.'

"My uncle hid himself in the sack and pretty soon the sheriff came in. He began hunting around and finally saw the sack.

"'What have you got in that sack?" he asked.

"'Sleigh-bells,' answered the proprietor.

"The sheriff gave the sack a vicious kick. But did my uncle holler? He did not. He was a quick thinker. He just said, 'Yangle, yangle, yangle!'

"And the sheriff was fooled and went away."

—The Atlantic Seal

◈ ◈ ◈

And His Wife Came Back

Jones was a druggist, and when his wife ran away with another man he inserted the following advertisement in the local paper:

"This is to notify the party who so kindly relieved me of my wife that I can supply him with liniments, bandages, arnica, healing salves, absorbent cotton, iodine, sleeping powders and crutches at rock bottom prices."

—Pure Oil News

◈ ◈ ◈

Nothing to Crow About

Rooster—My wife has just laid an egg.

Fish—Well, what of it? My wife has just laid three thousand, and you don't hear me crowing about it.

—The Loreco Diamond

◈ ◈ ◈

Motorist: "I'm sorry I ran over your hen, will a dollar be all right?"

Farmer: "Wall, better make it two. I have a rooster that was mighty fond of that hen and the shock might kill him too."

—The Booster

◈ ◈ ◈

"Have you heard the new pawnshop song?"

"No."

"Ve lent cha!"

—The Loreco Diamond

Powerful Wallop

"I saw an amusing sight the other night," declared one of the smoking room group. "A man met another on the street just ahead of me and I judged from their actions that a bootlegger was furnishing a patron with a quart of the profitable commodity. So I watched the recipient of the oblong parcel and he sidled around a corner. Beneath the shelter of a partly finished building he unwrapped his package and raised the bottle to his lips for a long quaff.

"Just then a brick, loosened by a sudden gust of wind, toppled from the parapet above and smote the drinker squarely on the head.

"'Boy, what a kick!' I heard him ejaculate."

—Pure Oil News

◈ ◈ ◈

Prompt Identification

"But I don't know you, madame," protested the paying teller to a woman who had presented a check.

The woman, instead of replying haughtily, "I do not wish your acquaintance, sir," merely gave him a glassy smile and said:

"Oh, yes you do. I don't need anyone to identify me. I'm the 'red-headed hen' next door to you whose 'imps of boys' are always running across your garden. When you started down town this morning your wife said: 'Now, Henry, if you want a dinner fit to eat this evening you'll have to leave me a little money. I can't keep this house on Christian Science.' You have to go in the back way when the porch has been scrubbed—"

"Here's your money," interrupted the teller faintly.

—The Booster

◈ ◈ ◈

A black hand letter addressed to a wealthy match and cigarette man demanded $25,000; otherwise they would kidnap his wife. Through error the missive was delivered to a poor laborer by the same name who replied: "I ain't got no money but I'm interested in your proposition."

—The Atlantic Seal

◈ ◈ ◈

"Pa, did you go to Sunday School when you was a boy?"

"Yes, my son, I always went to Sunday School."

"Well, Dad, I think I'll quit goin'—it ain't doin' me any good either."

—American Refining Co. Eagle

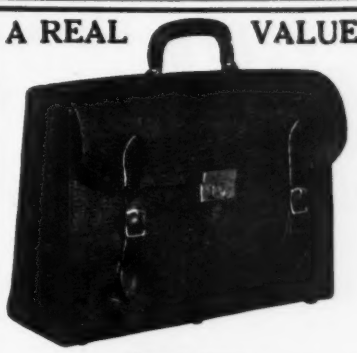
◈ ◈ ◈

She: "You told me before I married you that you were well off"

He: "I was, but I didn't know it."

—Pure Oil News

A REAL VALUE



Complete
Net only
$7.50

L-U-C-E 302K Folio is made of heavy, double weight muleskin, with reinforced bottom and strong lock, handle and straps. The edges are turned and lock stitched. One of the 3 roomy pockets contains an inner Case which holds 6 four oz. bottles and 5 grease jars. It is covered with washable Keratol and lined with velvet. Your name embossed in gold *free*. Satisfaction *guaranteed*.

Other Styles in our FREE Catalog

L-U-C-E

Builders of Sales Luggage

614 Delaware KANSAS CITY, Mo.

Clean with Oakite and *save money!*

WHEREVER petroleum and its products are handled—at every stage from production to distribution—there cleaning can be done more economically the OAKITE way.

With OAKITE cleaning methods less material is necessary, labor is reduced, cleaning is speeded up, work is done thoroughly, and FIRE HAZARD ELIMINATED! And equally important, *money is saved.*

Tell us your problems, or write today for booklet "OAKITE IN THE OIL INDUSTRY."

Oakite service men are located in all the main industrial centers of the U. S. and Canada.

Oakite is manufactured only by

OAKITE PRODUCTS, INC.
42c Thames St., New York, N. Y.
(Formerly OAKLEY CHEMICAL CO.)

OAKITE

Industrial Cleaning Materials and Methods

This Sign brings the motorist in !

and the Sinclair method of recommending

Opaline brings him back !

Authorized Dealer

SINCLAIR OPALINE MOTOR OIL

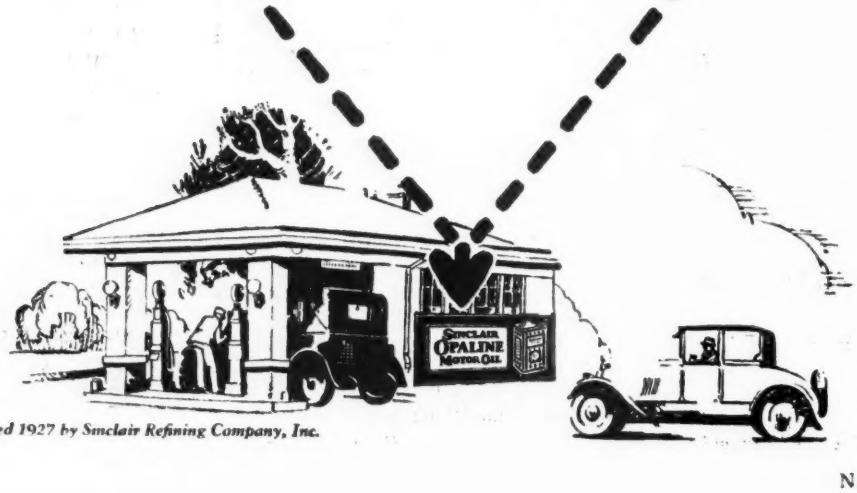
REG. U. S. PAT. OFF.

Seals Power at every Degree of Wear

DISPLAY this sign outside your station—you tell your motoring world that you sell not just oil but *CORRECT LUBRICATION!* If you are an Authorized Opaline Dealer, you will ask a motorist to look at his speedometer and tell you how many miles his car has been driven, then you will consult the Sinclair Recommendation Index, and give him the right grade of Opaline to fit the degree of wear in his engine and seal its power!

That is the Sinclair Law of Lubrication in operation. That's the commonsense method of correct lubrication which brings the motorist in—and brings him back. Let us tell you how we co-operate with Authorized Opaline Dealers in building profitable business.

SINCLAIR REFINING COMPANY, INC.
Also Makers of Sinclair Gasoline and H-C Gasoline
45 NASSAU STREET, NEW YORK
Atlanta Boston Chicago Houston Kansas City



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Refinery - Tank Wagon Markets

National Petroleum News

Mid-Continent Gasoline Markets Fall under Weight of Tankwagon and Crude Cuts

Staff Special
TULSA, March 5

THE Mid-Continent refinery market suffered another setback this week when a general revision downward in tankwagon prices was made by the Standard Oil Co. of Indiana and other companies, and the Magnolia Petroleum Co. and the Prairie Oil & Gas Co. posted the second reduction in crude prices within the past two weeks.

Just as in the case of the first crude oil price reduction on Feb. 22, the tankwagon reductions this week did their worst damage among the light oils. The second crude reduction was not posted until this morning, and due to the short business day an indication of its ultimate effect could not be obtained at the time this was written.

Prices on practically all grades of refined gasoline lost a quarter to a full cent a gallon during the past week. Kerosenes also lost ground, especially since U. S. Motor continued to slip slowly down upon them. Heavy oils apparently were unaffected.

Probably the most encouraging factor of the week was the purchase on Monday and Tuesday of 5,000,000 gallons of 60-62, 390 e. p. gasoline by the North American Car Corp. for export. This order was in addition to one of approximately 3,000,000 placed late in the last week of February. The order this week was placed with north Texas refiners. At least three of these had been making considerable U. S. Motor recently but now will be largely out of the U. S. Motor market for the next three or four weeks.

THE North American company is the only exporter actively in the market since the first of the year, but its purchases to date have amounted to between 15,000,000 and 16,000,000 gallons, the bulk of this being 60-62, 390 e. p. material. Kansas, Oklahoma, Texas and Louisiana refiners have shared in this business, but with the north Texas group getting the bulk of the orders.

The optimism which had developed among several refiners the latter part of last week as a result of heavy sales of gasoline into the far eastern territory, was destined for a short life. The Standard of Indiana Monday afternoon announced a 1-cent reduction in tankwagon and service station prices throughout its territory, the cut to be effective Tuesday, March 1.

The 1-cent cut was considered in some quarters as a possible market stabilizer. Inquiries were good after the tankwagon cut but total sales showed little if any increase. Jobbers were staying out of the market as much as possible to see what effect the cut would have.

THURSDAY morning one large refiner who had been quoting 58-60 U. S. Motor at 8½ cents announced his price had been reduced to 7½ cents. That afternoon two others who had been 8½ cents made similar reductions and by Friday afternoon practically all quotations were at that figure; with some material being moved from Oklahoma plants at 7¼ cents.

Not since October, 1924 has the price of U. S. Motor been as low as it was at the close of this week. The first week of that month the price was 6½ to 6¾ cents, but had climbed back to 7¼ cents flat by the last week of the month. At that time the price of 35 gravity crude oil in Oklahoma was $1.05 a barrel. The present price for the same gravity oil today is $1.44.

In the last week of October, 1924, the tankwagon price at Chicago was 14 cents per gallon, at Peoria 13.2 cents, Milwaukee 13.1 cents, Minneapolis 14.2 cents and St. Joseph 13 cents. With practically the same price prevailing today at the refinery as was in effect during that period in 1924, the tankwagon price at Chicago is 2 cents higher, at Peoria 4 cents, Milwaukee 6 cents, Minneapolis 3 cents and St. Joseph 6.5 cents higher.

IN view of this second crude cut the trade here today was of the opinion generally that another reduction in tankwagon by the Standard of Indiana would be forthcoming next week.

High gravity gasolines moved downward in sympathy with the lower gravity material. Exporters continued to stay out of the 64-66, 375 e.p. gasoline market, and domestic demand was characterized by refiners as fair. One refiner said he had had no trouble getting the top of the market for his 64-66 gasoline, but had been forced to work hard to move his 60-62, 400 e. p. material even at 8¼ cents this week.

Natural gasolines have shown no indication of coming out of the slump into which they slipped some time ago. In fact they are gradually getting in worse shape.

Two or three of the larger companies are reported to have quit selling on the spot market and have begun to store practically the entire output. Other companies not equipped with sufficient storage have been combing the field for instructions. One manufacturer said today the market apparently was not one of price but one of instructions.

Prices on all grades dropped a half to three-quarters of a cent lower during the week. Grade C was approximately 4½ cents, with rumors of some sales for over the month at 4¼ cents. This price is the lowest since 1923.

CONTRACTS which the New Orleans Refining Co. has with several manufacturers for approximately 1000 cars of natural gasolines a month are due to expire April 1. While it has been announced the New Orleans company has renewed contracts at market date of shipment price, the general report is that only a third to a half of the former amount has been re-contracted.

Refiners generally reduced their prices on kerosenes approximately a quarter of a cent late in the week. This reduction may be attributed in part to the action of the Standard of Indiana in placing a 1-cent discount on dumps of 50 gallons or more, but continued lack of active buying and the weakness of gasolines probably was responsible in a large measure for the lower prices.

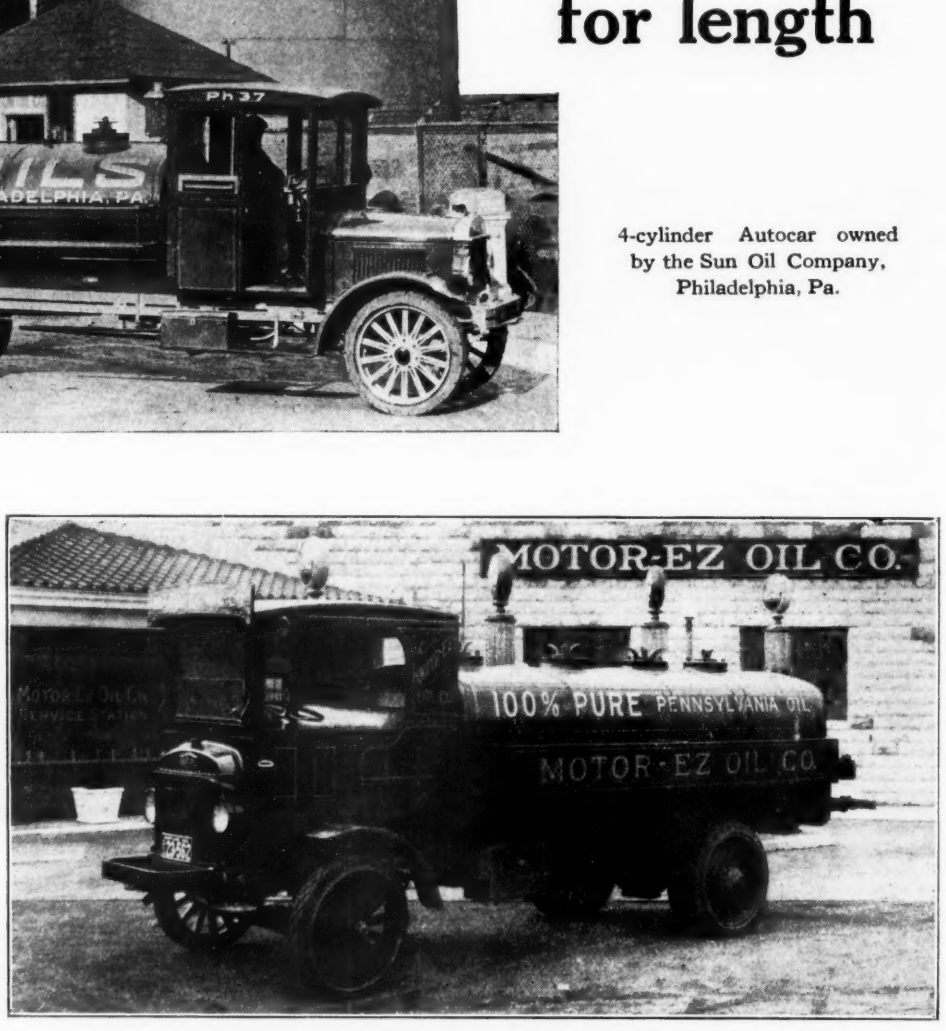
While weather conditions for the week ending Feb. 26 were favorable for both gasoline and kerosene demand, one marketing company representative today pointed out that a heavier blanket of snow has been reported on the ground most of the time this year as compared with last year, and in many states only the main trunk highways have been open for travel. Farmers naturally have been unable to get into their fields for spring plowing which would cause a better kerosene demand.

Spot demand for distillates also has dropped off considerably. Contract material continues to move out fairly well

(Continued on page 101)

Correct for load or for length

4-cylinder Autocar owned by the Sun Oil Company, Philadelphia, Pa.



4-cylinder Autocar owned by the Motor-Ez Oil Co., Baltimore, Md.

The Autocar policy of truck design now gives motor truck buyers an exclusive and complete selection with reference to wheelbase length without any sacrifice of load capacity.

Haulers of shifting loads of gasoline and oil may choose either type Autocar, for both are made of time-tested Autocar units and both are protected by the Autocar system of direct Factory Branches.

The Autocar Company

ESTABLISHED 1897

Ardmore, Pa.

Branches in 50 Cities

Autocar Trucks

Refinery Markets on Light Oils and Lubricants

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California and New England

GASOLINE AND NAPHTHA

	Prices Mar. 7	Prices Feb. 28	Prices Feb. 21
PENNSYLVANIA			
52-54 Naphtha	-11¼	11¼-11½	11¼-11¼
54-56 Naphtha	-11½	11½-11¾	11½-12
58-60 Gasoline	11 -11½	11¾-11¾	11½-11¾
60-62 Straight-run gasoline	11¾-12¼	12¾-12½	12¾-12½
64-66 Straight-run gasoline	12½-13	13 -13¼	13 -13¼
68-70 Straight-run gas. 350-360 E.P.	13½-14	13½-14	13¾-14¼
68-70 Straight-run gas. 305-320 E.P.	19 -20	18 -20	18 -20
OKLAHOMA			
48-50 450 E. P. naphtha	- 7½	7¾- 8	- 8¼
50-52 450 E. P. naphtha	- 7½	7¾- 8	8¼- 8½
56-58 450 E. P. gasoline	†- 7	†- 7½	-†8
56-58 U. S. Motor gasoline	†7⅛- 7¾	†7½- 7¾	-†8
58-60 450 E. P. gasoline	†7 - 7⅛	†7½- 7¾	-†8
58-60 U. S. Motor 437 E. P.	7¾- 7½	7½- 8	8 - 8¼
60-62 437 E. P. gasoline	7¼- 7¾	7¾- 8¼	- 8½
60-62 400 E. P. gasoline	- 8¼	- 8½	- 9
64-66 390 E. P. gasoline	8½- 8¾	- 9	- 9½
64-66 375 E. P. gasoline	- 9	- 9¼	- 9¾
68-70 350-360 E. P. gasoline	9½- 9¾	-10¼	10½-10¾
†Prices Nominal.			
KANSAS*			
58-60 U. S. Motor gasoline	7½- 7¾	7¾- 8¼	8½- 8¾
60-62, 400 E. P. gasoline	- 8½	- 9	- 9¼
64-66 375 E. P. gasoline	- 9¼	9½- 9¾	-10
*F. O. B. refinery Kansas destination.			
NORTH TEXAS			
48-50 450 E. P. naphtha	7¼- 7½	- 7½	- 8
56-58 450 E. P. gasoline	-*7	*7 - 7¼	- 8
58-60 450 E. P. gasoline	*7 - 7⅛	*- 7¼	- 8¼
58-58 U. S. Motor gasoline	*7 - 7¼	*- 7½	- 8¼
58-60 U. S. Motor gasoline	7¼- 7½	7¼- 7¾	8¼- 8½
64-66 390 E. P. gasoline	8½- 8¾	- 8¾	9¼- 9½
64-66 375 E. P. gasoline	8¾- 9	- 9	- 9¾
68-70 350-360 E. P. gasoline	9½- 9¾	-10	-10½
*Prices nominal.			
NORTH LOUISIANA			
58-60 U. S. Motor 437 E. P.	7¾- 8	- 8¼	8½- 8¾
ARKANSAS			
56-58 450 E. P. gasoline	- 7¾	- 8	- 8¼
58-60 450 E. P. gasoline	- 7⅞	- 8⅛	- 8⅜
58-60 U. S. Motor gasoline	- 8	8⅛- 8¼	8½- 8¾
CALIFORNIA			
*54-58 U. S. Motor 437 E. P.	9½-10	9½-10	9½-10
*58-61 U. S. Motor, 437 E. P.	10½-11	10½-11	10½-11
*42-45 Engine distillate 445-480 E. P.	7 - 7½	7 - 7½	7 - 7½
*2c tax to be added if used in state.			
NEW ENGLAND (F. O. B. Boston and Fall River)			
58-60 U. S. Motor gasoline	-12½	-12¾	-13

NATURAL GASOLINE

(Note: End point of all grades, not over 375° F.)

OKLAHOMA			
Grade AA, 80-87.9 375 E. P.	5½- 5¾	- 6¼	- 6¾
Grade A, 72-79.9 375 E. P.	- 6½	6¾- 6¾	7 - 7¼
Grade BB, 84-92, 375 E. P.	- 4¾	- 5¼	- 5¾
Grade B, 76-83.9, 375 E. P.	5 - 5¼	- 5¾	6 - 6¼
Grade C, 80-90, 375 E. P.	- 4¼	- 5	5¼- 5½
NORTH LOUISIANA			
*Grade Double A	6 - 6¼	6¾- 7	- 7¼
*Grade Double B	5 - 5¼	- 5¾	- 6¼
*Grade C	4¾- 5	- 5½	- 6
*F. O. B. Monroe District.			
NORTH TEXAS			
*Grade Double A	5½- 5¾	- 6¼	- 6¾
*Grade A	- 6¼	6½- 6¾	7 - 7¼
*Grade Double B	- 4¾	5¼- 5⅜	- 5¾
*Grade B	5 - 5¼	- 5¾	6 - 6¼
*Grade C	-†4½	5¼- 5⅜	- 5½
*F. O. B. Breckenridge.			
†Prices nominal, no sales being recorded on this date.			
CALIFORNIA			
75-85, 375-390 E. P. blend	11½-13	11½-13	11½-13

MOTOR FUEL BLENDS

PENNSYLVANIA			
68-70 Grav. 437 E. P. blend	11½-12¼	12¼-12½	12¼-12½
64-66 Grav. 437 E. P. blend	11½-12¾	12¾-12½	12¾-12½
60-62 Grav. 437 E. P. blend	11½-12	-12	-12
68-70 Grav. 420 E. P. blend	12 -12½	12½-12¾	12¼-12½
OKLAHOMA			
64-66 437 E. P. blend	7¼- 7½	7¼- 7¾	- 8

BURNING OILS

PENNSYLVANIA			
45 Water White Kerosene	7½- 7¾	7½- 7¾	7¾- 8
46 Water White Kerosene	8 - 8¼	8 - 8¼	8¼- 8½
47 Water White Kerosene	- 8¾	- 8¾	8¾- 9
OKLAHOMA			
41-43 Water White Kerosene	5½- 5¾	5¾- 6	6 - 6¼
42-44 Water White Kerosene	- 6¼	6½- 6¾	- 6¾
KANSAS			
41-43 w. w. kerosene	6¼- 6½	6¾- 6⅝	6½- 6¾
42-44 w. w. kerosene	7 - 7¼	7 - 7¼	7 - 7¼
NORTH TEXAS			
40-42 Water White Kerosene	5¾- 5½	- 5¾	- 5¾
41-43 Water White Kerosene	5¾- 5¾	5¾- 6	6 - 6¼
NORTH LOUISIANA			
41-43 Water White Kerosene	- 6¼	6¼- 6¾	6½- 6¾
ARKANSAS			
41-43 Kerosene	- 6¼	6¼- 6½	- 6¾
CALIFORNIA			
38-40 Water White Kerosene	6 - 6½	6 - 6½	6 - 6½
NEW ENGLAND			
**40-43 Water White Kerosene	**- 8¾	**- 8¾	**- 9

NEUTRAL OIL

PENNSYLVANIA			
(Viscosity at 70° F.)			
200 Vis. No. 3 Assoc. Filt.	32 -32½	32 -32½	32 -32½
180 Vis. No. 3 Assoc. Filt.	30 -30½	30 -30½	-30
150 Vis. No. 3 Assoc. Filt.	27 -28	27 -28	27 -28
(Non-Viscous)			
34 Grav. 330-340 Flash	8 - 8½	8 - 8½	8 - 8½
36 Miners Neutrals 300-305 Flash	7¼- 7¾	7¼- 7¾	7¼- 7¾
OKLAHOMA			
(Viscosity at 100° F.)			
100 Vis. No. 2 color	7 - 7½	7 - 7½	7 - 7½
150 Vis. No. 3 color	9 -10	9 -10	9 -10
150 Vis No. 4 color	- 9¾	- 9¾	- 9¾
180 Vis. No. 3 color	10 -11	10 -11	10 -11
180 Vis No. 4 color	10 -10½	10 -10½	10 -10½
180 Vis. No. 5 color	10 -10¼	10 -10¼	10 -10¼
200 Vis. No. 3 color	10¾-11¾	10¾-11¾	10¾-11¾
200 Vis. No. 4 color	-11½	-11½	-11½
200 Vis. No. 5 color	9¼-11¼	9¼-11¼	9¼-11¼
220 Vis. No. 3 color	12 -13½	12 -13½	12 -13½
220 Vis. No. 4 color	-13	-13	-13
220 Vis. No. 5 color	12 -12¾	12 -12¾	12 -12¾
240 Vis No. 3 color	14 -15	14 -15	14 -15
240 Vis. No. 4 color	-14½	-14½	-14½
240 Vis. No. 5 color	13 -14	13 -14	13 -14
280 Vis. No. 3 color	16 -17	16 -17	16 -17
280 Vis. No. 4 color	-16½	-16½	-16½
280 Vis. No. 5 color	15 -16	15 -16	15 -16
300 Vis. No. 5-6 color	-17	-17	-17
GULF COASTAL (Viscosity at 100° F; pour test 0)			
100 Vis. No. 2 Color Unfilt. Pale	8 - 9	8 - 9	8 - 9
200 Vis. No. 3 Color Unfilt. Pale	11 -12	11 -12	11 -12
300 Vis. No. 3 Color Unfilt. Pale	12 -13	12 -13	12 -13
500 Vis. No. 3½ Color Unfilt. Pale	14 -15	14 -15	14 -15
750 Vis. No. 4 Color Unfilt Pale	16 -17	16 -17	16 -17
200 Vis. No. 5½ Color Red Oil	9 -10	9 -10	9 -10
300 Vis. No. 5½ Color Red Oil	10½-11½	10½-11½	10 -11
500 Vis. No. 6 Color Red Oil	12 -13	12 -13	12 -13
750 Vis. No. 6 Color Red Oil	15 -16	15 -16	15 -16
CALIFORNIA (Viscosity at 100° F)			
100 Vis. No 2 color	9 - 9½	9 - 9½	9 - 9½
100 Vis. No. 3 color	7½- 8	7½- 8	7½- 8
200 Vis. No. 3 color	9½-10	9½-10	9½-10
300 Vis. No. 3 color	10½-11	10½-11	10½-11
450 Vis No. 3 3½ color	13 -13½	13 -13½	13 -13½
550 Vis. No. 3 3½ color	14½-15	14½-15	14½-15
600 Vis. No. 3 3½ color	15 -15½	15 -15½	15 -15½
100 Vis. No. 5 color	6½- 7	6½- 7	6½- 7
200 Vis. No. 5 color	8½- 9	8½- 9	8½- 9
300 Vis. No. 5 color	9 - 9½	9 - 9½	9 - 9½
400 Vis. No. 6 color	11 -11½	11 -11½	11 -11½
500 Vis. No. 6 color	11½-12	11½-12	11½-12
600 Vis. No. 6 color	12 -12½	12 -12½	12 -12½
700 Vis. No. 7 color	14½-15	14½-15	14½-15

CYLINDER STOCKS

OKLAHOMA			
190-200 Vis. at 210° Bright Stock	31 -35	31 -35	31 -35
150-160 Vis. at 210° Bright Stock	27 -31	27 -31	27 -31
600 E Stock 140-150 Vis. —210°	18 -20	18 -20	18 -20
600 Steam Refined Olive Green	8 -11	8 -11	8 -11
600 Steam Refined Dark Green	5½- 7½	5½- 7½	5½- 7½
Black Oil	5 - 6	5 - 6	5 - 6
PENNSYLVANIA (1-inch Immersion Test)			
600 Steam Refined	11¾-12	-12	12 -12½
650 Steam Refined	15 -16	15½-16	16 -16½
600 Flash	-20	-20	20 -21
625 Flash	-30	-30	-30
600 Warren E	20 -20½	20 -20½	20 -20½
600 Oil City E	18 -19	18 -19	18 -19
600 D Filtered	25½-26	25½-26	25½-26
Cold Test Stocks (bright filtered)	36½-37½	36½-37	36½-38
Cold Test Stock (dark filtered)	34½-35½	34½-35	35 -36

(Note—Prices of total immersion test goods average 1 to 3 cents per gallon higher.)

LONG RESIDUUM STOCKS

PENNSYLVANIA			
60-65 vis. @ 210, 440-450 flash No. 5½ color	-34	-34	-34
70-75 vis. @ 210, 450-455 flash No. 6 color	34 -35	34 -35	34 -35
80-85 vis @ 210, 440-450 flash No. 7 color	-36	-36	-36
80-85 vis. @ 210, 450-460 flash No. 7-8 color	36 -37	36 -37	36 -37
80-85 vis. @ 210, 460-465 flash No. 7 color	37 -38	37 -38	37 -38
95-100 vis. @ 210, 490-495 flash No. 8 color	-39	-39	-39

**Only one refiner quoting.

The bugbear of Sludge Acid Concentration
may *now* be avoided by employing

THE GEYSER-ACTION PROCESS

(*using Skoglund's Acid Concentrator*)

which requires only *One Stage* to bring the Acid up to *Strength* giving a *High Yield* at a *Low Cost.*

Simple in Operation, necessitating but few shutdowns to clean or repair the Apparatus.

No Fume Nuisance or Filthy Product

Patented and Patents Pending

GEO. F. HURT ENGINEERING CORP.

52 Vanderbilt Ave. New York City

We Shipped a Truck Tank Down To Dixie

Four oil jobbers saw it and ordered one like it (without asking the price). A Brown CERTIFIED truck tank sells itself on quality anywhere. They are known from coast to coast as the tank of no repairs. Just good honest material and plenty of it, properly designed, built tight and will remain so. *The prices are very interesting, write for them.*

The above is one of a Large Fleet of Tanks constructed for The Texas Co.

BROWN SHEET IRON & STEEL CO. **ST. PAUL, MINN.**

Tear off this coupon and mail it today

We are interested in your tanks. Send your catalog and prices.

Make of Truck_____ Size Tank Required_____

Other equipment on which you may send prices_____

Name_____ Address_____

Refinery Markets on Wax and Heavy Oil Products

Pennsylvania, Oklahoma, Kansas, North and South Texas, Louisiana, Arkansas, California, and New England

WAX

*PENNSYLVANIA	Prices Mar. 7	Prices Feb. 28	Prices Feb. 21
122-124 White Crude Scale.	4¾- 4¾	- 4½	- 4½
124-126 White Crude Scale.	4½- 4¾	4½- 4¾	4½- 4¾
OKLAHOMA			
124-126 White Crude Scale.	- 4¾	- 4¾	- 4¾
CALIFORNIA			
White Crude Scale	6 - 7	6 - 7	6 - 7

*Per Pound, New York

FUEL OIL

PENNSYLVANIA			
36-40 Fuel Oil	6 - 6¾	6¾- 6¾	6¾- 6¾
30-34 Fuel Oil	6 - 6¾	6 - 6¾	6 - 6¾
28-30 Fuel Oil	6 - 6¾	6 - 6¾	6 - 6¾
OKLAHOMA			
38-40 Straw distillate	- 4½	4½- 4¾	4½- 4¾
36-38 Straw distillate	- 4½	- 4½	- 4½
**32-36 Gas oil straw (Gal.)	4¼- 4½	†4¼- 4½	†4¼- 4½
**32-36 dark Gas oil, (Gal.)	4 - 4¼	4 - 4¼	4¼- 4¼
*28-30 Fuel oil (Bbl.)	1.45 -1.55	1.45 -1.55	1.50 -1.60
*26-28 Fuel oil (Bbl.)	1.30 -1.35	1.30 -1.40	1.30 -1.40
24-26 Fuel oil (Bbl.)	1.25 -1.30	1.25 -1.30	1.25 -1.30
22-26 Fuel oil (Bbl.)	1.20 -1.25	1.20 -1.25	1.20 -1.25
18-22 Fuel oil (Bbl.)	1.15 -1.20	1.17½-1.20	1.17½-1.20
16-18 Fuel oil (Bbl.)	1.17½-1.20	1.17½-1.20	1.17½-1.20
14-16 Fuel oil (Bbl.)	1.15 -1.17½	1.15 -1.17½	1.15 -1.17½

*Zero cold test material bringing from 5 to 10 cents more per barrel.
†Prices nominal.
**Zero cold test gas oil sells at ¾ to ⅞ of a cent higher than higher cold test material.

KANSAS*			
38-40 straw distillate	5 - 5¼	5¼- 5¼	- 5½
36-38 straw distillate	4¾- 5	5 - 5¼	- 5¼
32-36 Gas Oil	4¾- 4½	4¾- 4½	4¾- 4½
18-22 Fuel Oil	1.25 -1.35	1.25 -1.35	1.25 -1.35
24-26 Fuel Oil	1.45 -1.55	1.45 -1.55	1.45 -1.55

*F. O. B. refinery, Kansas destination.

NORTH TEXAS			
38-40 Straw distillate	4½- 4½	4¾- 4¾	- 4¾
32-36 Gas Oil (Gal.)cracked	3⅞- 4	4 - 4¼	- 4¼
32-36 uncracked gas oil	- 4	4 - 4⅛	4¼- 4¼
24-26 Fuel per (Bbl.)	1.52½-1.55	-1.55	1.55 -1.60
GULF COASTAL			
Fuel	1.60 -1.65	1.60 -1.65	1.60 -1.65
Gas Oil	5¼- 5¼	5¼- 5¼	5¼- 5¼

NORTH LOUISIANA	Prices Mar. 7	Prices Feb. 28	Prices Feb. 21
32-36 Gas oil,cracked (Gal.)	4 - 4⅛	4⅛- 4⅛	4⅛- 4⅛
32-36 Gas oil,uncracked (Gal.)	4⅛- 4¼	4⅛- 4⅛	4⅛- 4¼
16-20 Fuel Oil (Bbl.)	1.25 -1.30	1.30-1.35	1.30-1.35
ARKANSAS			
30-34 Gas oil	4¼- 4½	4¼- 4½	4¼- 4¼
32-36 Gas oil	4½- 4¾	4½- 4¾	- 4¾
*Smackover Crude Fuel	1.25 -1.27½	1.25 -1.27½	1.25 -1.27½

*For unrestricted shipment.

CALIFORNIA*			
14-18 Fuel Oil (Bbl.)	.80 -1.00	.80 -1.00	.80 -1.00
14-18 Bunker Oil (Bbl.)	.80 -1.00	.80 -1.00	.80 -1.00
30-34 Gas Oil (Bbl.)	1.30 -1.35	1.30 -1.35	1.30 -1.35
27 + Diesel Oil (Bbl.)	-1.15	-1.15	-1.15

*(San Joaquin Valley, San Francisco 4c per bbl. more.)

NEW ENGLAND (F. O. B. Boston and Fall River)			
30-32 Gas Oil (Gal.)	- 6¼	- 6¼	- 6¼
Fuel Oil (Bunker C) Bbl.	-2.05	-2.05	-2.05

PETROLATUMS

PENNSYLVANIA (Cents Per Pound in Tank Cars)*

Snow White	7¾- 7¾	7¾- 7¾	7¾- 7¾
Lily White	- 6¾	- 6¾	- 6¾
Cream White	- 5¾	- 5¾	- 5¾
Light Amber	2¾- 2¾	2¾- 2¾	2¾- 2¾
Amber	2¾- 2½	2¾- 2¾	2¾- 2½
Red	- 2¾	- 2¾	- 2¾
Green No. 5 Color	- 1½	- 1½	- 1½

*In barrels ¾c a pound more, carlots.

PETROLEUM COKE

OKLAHOMA (Per ton in car lots)

Lump	$5-$6	$5-$6	$5-$6
Breeze	2-2.25	2-2.25	2-2.25
Still Run	3.25-3.50	3.25-3.50	3.25-3.50

Above prices are f. o. b. refinery in tank car. They are the prices at which the bulk of the products on the open market move. Whoever has knowledge of any open market prices on any considerable quantity of goods differing from the foregoing, will favor us with this information.

(Continued from page 97)

but there is no tendency on the part of jobbers to take more than their immediate needs now, accordingly their spot buying is on a hand-to-mouth basis. Prices are from a quarter to a half a cent lower than at this time last week.

Gas oil has held its own fairly well, due probably to the fact that refiners have been storing their excess stocks for cracking purposes this summer when gasoline demand is expected to be at its best.

The fuel oils also have kept well in line this week as far as both price and demand have been concerned. One refiner this week sold over 100 cars of 18-22 gravity fuel for shipment over the month, getting from $1.15 to $1.17½ per barrel. Other refiners reported their fuel oil business was fair. Higher gravity fuels were relatively scarce, although with warmer weather near the low cold test material has lost some of its prestige.

Refiners have made no changes as yet in their price lists for neutral oils and cylinder stocks.

Tanker Shipments from Los Angeles

LOS ANGELES, March 5.—During the week ending with Feb. 26, total of 21 tankers left Los Angeles harbor for Atlantic domestic, Atlantic foreign and Pacific foreign points, carrying a total of 450,590 barrels of crude, 1,049,431 barrels of fuel, 84,421 barrels of gasoline, 76,906 barrels of kerosene and 76,655 barrels of gas oil. Atlantic domestic drew 281,900 barrels of crude, 464,539 barrels of fuel, 76,655 barrels of gas oil and 77,121 barrels of gasoline. Atlantic foreign drew 114,800 barrels of crude and 186,241 barrels of fuel. Other shipments were for Pacific foreign.

Half Interest in Pecos Tract Brings $320,000

Staff Special

HOUSTON, March 5.—A year ago Kemper Kimberlin was scouting a part of the San Angelo territory for the Marland Oil Co. of Texas; today he is cashing-in on the fruits of operations that followed his resignation from company activities. After drilling a dry hole or two, Kimberlin joined the Krupp-Pickrell interests in a wildcat test in sec. 55, I&GN block 1, four miles southeast of the Pecos county discovery well of the Mid-Kansas and Transcontinental companies on the Yates ranch. Now Kimberlin has sold his half interest in the well and the 640 acres on which it is located for a cash and oil consideration of $320,000. His former partners are the buyers.

Eastern Kentucky Refinery Market

ASHLAND, March 7.—All gasolines in eastern Kentucky refinery market are down ¼ to ½c, U. S. motor grade being down ½c and higher gravities ¼c. Kerosene is also down ½c.

Quotations on March 7 were:

	Eastern
58-60 gasoline	10½
60-62 gasoline	11
64-66 gasoline	11¼
68-70 gasoline	12¼
41-43 w.w. kerosene	7¾
34-36 gas oil	6⅝
24-26 fuel oil	4¼
23-25 fuel oil	
14-16 fuel oil	4¼

Foreign Opportunities

Reserved information may be obtained from the Bureau of Foreign and Domestic Commerce, Washington, and its district and cooperative offices by duly registered firms and individuals upon written request by opportunity number. The Bureau does not furnish credit ratings or assume responsibility as to the standing of foreign inquirers; the usual precautions should be taken in all cases, and where no references are offered it does not necessarily imply that satisfactory references could not be given. Correspondence may be in English unless otherwise stated.

24329.—**Paraffin,** Huancayo, Peru, purchase.

24330.—**Diesel oil,** Cartagena, Spain, agency.

24331.—**Gas oil,** Limasol, Cyprus, purchase.

24332.—**Lubricating oils and greases,** Vancouver, Canada, agency.

Chicago Resale Market Awaiting Full Import of Crude Cut

CHICAGO, March 5

DEMAND for commodities was slack and spot movement small this week in the Chicago resale market. The dominant factor here was completion of the price structure readjustment, which began Feb. 22 with crude price reductions, and was followed by the Standard Oil Co. of Indiana cut of 1 cent on gasoline effective March 1, while the trade, as one seller put it, assumed an attitude of watchful waiting. Other issues of importance were the 1 cent discount given on 50-gallon kerosene dumps and a further change in Standard of Indiana's quantity discount agreement.

Rumors and reports that the Feb. 22 crude change did not go the full limit in establishing a settled market and that further readjustment would be necessary were heard through the week, and these reports materialized with another Mid-Continent cut Saturday. Many sellers here claimed this further readjustment was necessary as a basis for the beginning of the forthcoming spring demand. As in the past the Chicago market today became dormant awaiting the full import of the latest change.

Interest this week centered on 58-60 U. S. Motor gasoline. From some quarters came reports of a fair demand during the week with a goodly number of spot sales for rush shipment while other sellers reported a quietness broken by occasional orders. High test gasolines were inactive over the week. Contract movement, on the other hand, was reported as good. One refiner has informed his main office that conditions are better now than at a corresponding time last year and that last month he had almost 100 per cent record for material ordered out. He attributed this condition to the fact that he has more contracts based on the open market which has placed the jobber in a better position than under a contract based on a posted market price.

U. S. Motor gasoline price in Chicago this week was more stable and remained in a 7½ to 7¾ cent range, and the 60-62, 437 e. p. grade at 7¾ to 8 cents. High test, with the exception of 60-62, 400 e. p. grade which was in little demand and remained at 8½ cents, were fractionally lower. The 64-66, 375 e. p. gasoline opened at 9¼ to 9½ cents and went to a range of 9 to 9¼ cents Wednesday for the balance of the week; the 68-70, 350-360 e. p. grade was 10 to 10¼ cents Monday and 9¾ to 10¼ cents later in the week.

Kerosene also was in little demand but reports of movement were more steady. One refiner had a good volume of business to Michigan points with material shipped from the east. The 41-43 w. w. kerosene remained at 6 cents early in the week and broke through to a market of 5¾ to 6 cents near the close of business.

Distillate and gas oil demand showed no change. More fluctuation was noted on 38-40 straw distillate price this week with material offered at 4¾ cents early in the period and at 4⅝ to 4¾ cents later. Gas oil prices, which had been firm, were down. The 32-36 straw zero cold test oil was 4½ to 4¾ cents Monday, 4½ cents Wednesday and 4¼ to 4½ cents at the close; 32-36 dark zero gas oil was 4¼ cents flat beginning Wednesday after having a range of 4¼ to 4⅜ cents; and the ordinary dark gas oil which had been 4⅛ to 4¼ cents sold at 4 cents after mid-week.

Fuel prices were firm and unchanged. The 18-22 grade was $1.17½ to $1.20; the 22-26 fuel $1.22½ to $1.25; the 24-26 grades $1.25 to $1.30; and the 28-30 low cold test material $1.60 to $1.65. Smackover was strong at $1.25 to $1.27½. Demand for fuel was quiet.

Rain is predicted for next week in the Chicago marketing district as a storm now in the west is scheduled to pass eastward. But clearing weather is to follow the storm. Temperatures are to be variable, but near the seasonal normal, and no cold weather is in sight.

PLATT'S
OILGRAM
Petroleum Markets-Every Day

2 CRUDE CUTS IN 11 DAYS

MID-CONTINENT crude was cut on Feb. 22nd and again March 5---

***When* and *where* will the next crude or tank wagon change be?**

What are the exact prices at which gasoline and kerosene moved in the past 12 hours? Or lubricating oils, or export prices at the Gulf and New York?

You'd know the answer to these questions *this morning*, if you had the OILGRAM on your desk. It's your protection against quick changes in the market situation.

If you ever needed to keep in daily contact with the oil markets---IT IS NOW.

30c a day will bring this fast daily market service to you, $75 a year, or $25 for 3 months. Order your service from the nearest mailing point---TODAY.

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CHICAGO—360 N. Michigan Ave.
CLEVELAND—886 Caxton Bldg.

Week's Price Changes Tank Wagon Markets

Gasoline Changes

Standard of New York—Although the gasoline reduction of 1 cent on Feb. 28 was announced as effective through the territory, it did not affect Rochester nor Buffalo. Rochester prices were correct in last week's issue but Buffalo prices were in error. T.w. price there has been 20 cents, s.s. price 23 cents since **Feb. 10.**

Standard of Indiana—In the general 1 cent reduction on gasoline prices on March 1, prices at Minneapolis, Des Moines and Kansas City were unchanged. Other exceptions were: Grand Forks, cut 8/10 cent, to 21.2 cents t.w. and 23.2 cents s.s., including 2 cents tax; Bartlesville, where gasoline had been cut 8/10 cent, to 18 cents t.w., and 20 cents s.s. on **Feb. 23,** was cut only 2/10 cent on **March 1,** bringing prices at that point back to normal schedule.

Standard of Nebraska—T.w. and s.s. prices gasoline cut 1 cent, through Nebraska, except at points where prices were below normal, **March 1.** Omaha t.w. price was unchanged but s.s. was cut 1 cent. Norfolk prices were also unchanged.

Magnolia Petroleum—T.w. and s.s. prices gasoline cut 1 cent, Oklahoma, **March 5.** T.w. price generally is 16 cents, including 3 cent tax.

Gasoline reduced 1 cent, El Paso, to 17 cents, **March 3.** Dealers' discount was increased to 4 cents at Dallas, making actual tank wagon price to dealer 12 cents, without 1 cent state tax.

Continental Oil—The ½ cent advance in Wyoming and 1 cent advance in Idaho on March 1, as published on page 214 of the March 2 issue, were advances in state road taxes. On March 1 Wyoming tax was raised to 3 cents and Idaho tax to 4 cents, and gasoline was advanced a corresponding amount to cover tax increase.

T.w. and s.s. prices gasoline reduced 1 cent generally, Colorado, Wyoming, Montana and New Mexico, **March 2.** Exceptions: Denver s.s. unchanged at 21 cents; Pueblo, Butte and Albuquerque prices unchanged.

Canada—T.w. and s.s. prices gasoline reduced 1 cent, through Canada, **March 1.**

* * *

Kerosene Changes

Standard of Indiana—T.w. price kerosene reduced 2 cents, Quincy, Ill., to 11.4 cents, **Feb. 17.**

Magnolia Petroleum—Kerosene cut 1 cent, Oklahoma, to 12 cents generally, **March 5.**

Canada—Kerosene cut 1 cent, through Canada, **March 1.**

TULSA—Alf G. Heggem, president of the Oil Well Improvements Co. and member of the producing firm Heggem & Davis, has been elected president of the Tulsa Chamber of Commerce. He succeeds W. G. Skelly, president of the Skelly Oil Co.

Tank Wagon, Service Station Markets for Gasoline and Kerosene In United States Territories and Canada

These Prices in Effect March 7, 1927

S. O. NEW JERSEY TERRITORY

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline S.S.	Oil T.W.
Atlantic City, N. J.	18	0	18	*	15
Newark, N. J.	18	0	18	20	15
Annapolis, Md.	18	2	20	*	15
Baltimore, Md.	18	2	20	23	10
Cumberland, Md.	18	2	20	23	14 25
Washington, D. C.	18	2	20	23	12
Danville, Va.	18	4½	22.5	*	15
Norfolk, Va.	18	4½	22.5	25.5	15
Richmond, Va.	18	4½	22.5	25.5	15
Roanoke, Va.	18	4½	22.5	25.5	15
Petersburg, Va.	18	4½	22.5	25.5	15
Williamsburg, Va.	18	4½	22.5	*	15
Charleston, W. Va.	18	3½	21.5	24.5	15
Clarksburg, W. Va.	18	3½	21.5	24.5	15
Keyser, W. Va.	18	3½	21.5	*	15
Parkersburg, W. Va.	18	3½	21.5	24.5	15
Wheeling, W. Va.	18	3½	21.5	24.5	15
Charlotte, N. C.	18	4	22	25	15
Hickory, N. C.	18	4	22	25	15
High Point, N. C.	18	4	22	*	15
Mt. Airy, N. C.	18	4	22	25	15
Salisbury, N. C.	18	4	22	25	15
Charleston, S. C.	18	5	23	26	15
Columbia, S. C.	18	5	23	23	15

*Dealers set own prices. S. O. New Jersey does not operate station.

S. O. NEW YORK

Due to local price conditions at many points in S. O. New York territory, actual prices on both gasoline and kerosene are being made at under the posted tank wagon prices published below.

*New York City	21	0	21	25	17
Albany, N. Y.	21	0	21	23	17
Buffalo, N. Y.	20	0	20	23	14
†Rochester, N. Y.	19	0	19	22	14
Syracuse, N. Y.	21	0	21	23	17
Boston, Mass.	21	0	21	23	15
Augusta, Me.	21	3	24	27	17
Manchester, N. H.	21	2	23	25	17
Burlington, Vt.	21	2	23	25	17

*In steel barrels.

†It is reported that S. O. New York is selling a second grade of gasoline at Rochester, from 2 to 3c below the above posted prices which apply on its Socony grade.

ATLANTIC REFINING

Pittsburgh, Pa.	18	*	18	*23	15
Philadelphia, Pa.	18	*	18	*23	15
Allentown, Pa.	18	*	18	*23	15
†Erie, Pa.	18	*	18	*23	15
Scranton, Pa.	18	*	18	*23	15
Altoona, Pa.	18	*	18	*23	15
Dover, Del.	18	2	20	23	15
Wilmington, Del.	18	2	20	23	15
Providence, R. I.	21	1	22	24	17
Boston, Mass.	21	0	21	23	15
Springfield, Mass.	21	0	21	23	17
Worcester, Mass.	21	0	21	23	17
Hartford, Conn.	21	2	23	25	17
New Haven, Conn.	21	2	23	25	17

*2-cent state tax is collected by retail dealer and paid by him directly to state.

†Due to the highly competitive conditions in Erie, actual tank wagon and service station prices are under posted prices quoted above.

S. O. KENTUCKY

Lexington, Ky.	17	5	22	25	17
Louisville, Ky.	15	5	20	23	17
Covington, Ky.	16	5	21	24	17
Clarksdale, Miss.	16	4	20	23	14.5
Gulfport, Miss.	††17.5	4	††21.5	24.5	15
Jackson, Miss.	16	4	20	23	15.5
Natchez, Miss.	15.5	4	19.5	22.5	15
Vicksburg, Miss.	15.5	4	19.5	22.5	15
Birmingham, Ala.	18	4	22	25	17.5
Mobile, Ala.	17	4	21	24	16
Montgomery, Ala.	*19	4	23	26	*18.5
Atlanta, Ga.	†16	3½	20	23	18
Augusta, Ga.	†16	3½	20	23	17
Macon, Ga.	†16	3½	20	23	18
Savannah, Ga.	†16	3½	20	22	16
Jacksonville, Fla.	14	4	18	21	16
Miami, Fla.	16	4	20	23	17.5
Tampa, Fla.	14	4	18	21	16
Pensacola	**15	4	**19	22	16.5

*Local privilege tax of 1 cent on gasoline and ½ cent on kerosene at Montgomery included.

†Georgia has ½ cent per gal. inspection fee on gasoline which is deducted as well as the state gasoline road tax of 3½ cents, to get the actual net tank wagon market to dealer.

**Both tank wagon prices include 1c city tax at Pensacola, which went into effect Oct. 15, 1926.

††Both tank wagon prices at Gulfport include Harrison county privilege tax of 2c.

S. O. INDIANA

	Gasoline T.W.	Gasoline Tax	Gasoline **Total T.W.	Gasoline S.S.	Oil T.W.
Chicago, Ill.	16	0	16	18	13
Decatur, Ill.	16.2	0	16.2	18.2	13.6
E. St. Louis, Ill.	15.1	0	15.1	17.35	12.7
Joliet, Ill.	16.4	0	16.4	18.4	13.8
Peoria, Ill.	16.2	0	16.2	18.2	13.6
Quincy, Ill.	16.2	0	16.2	18.2	11.4
Indianapolis, Ind.	16.2	3	19.2	21.2	14.2
Evansville, Ind.	16	3	19	21	14
South Bend, Ind.	16.4	3	19.4	21.4	14.4
Detroit, Mich.	16.8	2	18.8	20.8	14.7
Grand Rapids, Mich.	16.7	2	18.7	20.7	14.6
Saginaw, Mich.	16.9	2	18.9	20.9	14.8
Green Bay, Wis.	16.6	2	18.6	20.6	13.4
Madison, Wis.	16.3	2	18.3	20.3	13.1
Milwaukee, Wis.	16.1	2	18.1	20.1	12.9
La Crosse, Wis.	17.2	2	19.2	21.2	14
Minneapolis, Minn.	15.2	2	17.2	19.2	13.9
Duluth, Minn.	17.5	2	19.5	21.5	13.9
Mankato, Minn.	17.1	2	19.1	21.1	13.7
Des Moines, Iowa	14	2	16	18	13.5
Davenport, Iowa	16.5	2	18.5	20.5	13.5
Sioux City, Iowa	16.1	2	18.1	20.1	13.1
Mason City, Ia.	16.5	2	18.5	20.5	13.5
St. Louis, Mo.	*15.6	2	17.6	19.9	12.6
Kansas City, Mo.	†16	2	18	20	11.9
St. Joseph, Mo.	†16.5	2	18.5	20.5	12.5
Fargo, N. D.	18.9	2	20.9	22.9	15.9
Grand Forks, N. D.	19.2	2	21.2	23.2	16.2
Minot, N. D.	18.9	2	20.9	22.9	15.9
Pierre, S. D.	17.5	3	20.5	22.5	14.9
Huron, S. D.	17.5	3	20.5	22.5	14.9
Wichita, Kans.	14.8	2	16.8	18.8	11.8
Bartlesville, Okla.	14.8	3	17.8	19.8	11.8

**Dumps of 50 gallons or more, 1c discount through territory, except in Chicago where 1c discount applies on dumps of 100 gallons or more.

*Includes city tax of ½c.

†Includes city tax of 1c.

S. O NEBRASKA

Omaha, Neb.	14.25	2	16.25	19.25	13.25
McCook	17.75	2	19.75	21.75	14.75
Norfolk	16	2	18	20	13.75
North Platte	17.75	2	19.75	21.75	14.5
Scottsbluff	17.25	2	19.25	21.25	14

CONTINENTAL OIL

Denver, Colo.	17	2	19	21	13.5
Pueblo, Colo.	15	2	17	19	15.5
Grand Junction, Colo.	20.5	2	22.5	24.5	19
Casper, Wyo.	17	3	20	22	14
Cheyenne, Wyo.	18	3	21	23	15.5
Butte, Mont.	19	3	22	22	19
Helena, Mont.	21	3	24	26	19
Salt Lake City, Utah.	19.5	3½	23	25	17
Boise, Ida.	21.5	4	25.5	27.5	19
Twin Falls, Ida.	21.5	4	25.5	27.5	19
Albuquerque, N. M.	20	3	23	26	18

S. O. CALIFORNIA

Phoenix, Ariz.	19	3	22	25	21.5
Los Angeles, Cal.	13.5	2	15.5	18.5	15.5
Fresno, Cal.	14	2	16	19	16.5
San Francisco, Cal.	14	2	16	19	15.5
Rono, Nev.	18	4	22	25	19
Portland, Ore.	14	3	17	20	16.5
Seattle, Wash.	14	2	16	19	16.5
Spokane, Wash.	18	2	20	23	20.5
Tacoma, Wash.	14	2	16	19	16.5

S. O. LOUISIANA

Little Rock, Ark.	14	4	18	21	13
Alexandria, La.	14	2	16	19	†15
Baton Rouge, La.	13	2	15	18	†13.5
Lake Charles, La.	14.5	2	16.5	19.5	†15
New Orleans, La.	*14.5	2	16.5	19.5	†14
Shreveport, La.	13	2	15	18	†14
Lafayette, La.	14	2	16	19	†14.5
Bristol, Tenn.	16.5	3	19.5	22.5	15
Chattanooga, Tenn.	16.5	3	19.5	22.5	15
Knoxville, Tenn.	16.5	3	19.5	22.5	16
Nashville, Tenn.	15	3	18	21	16
Memphis, Tenn.	14	3	17	20	15

*Includes 1c parish tax on gasoline.

†Kerosene prices in Louisiana include 1c state tax.

S. O. OHIO

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline S.S.	Oil T.W.
All Ohio points	19	2	21	23	17

MAGNOLIA PETROLEUM

Muskogee, Okla.	13	3	16	19	11
Oklahoma City	13	3	16	19	12
Tulsa, Okla.	13	3	16	19	12
Fort Smith, Ark.	14	4	18	21	13
Little Rock, Ark.	14	4	18	21	13
Texarkana, Ark.	†17	4	**21	**21	15
Dallas, Tex.	**16	1	**17	**17	15
Fort Worth, Tex.	††14	1	††15	††15	15
Houston, Tex.	†16	1	†17	†17	15
San Antonio, Tex.	†16	1	†17	†17	14
El Paso, Tex.	†16	1	†17	†17	16

*Within city of Texarkana, Ark., the state tax on gasoline is 1c per gal. conforming with the Texas state tax. In Texarkana district outside of the city the 4c state tax applies.

†3c per gal. discount to dealers.

††1c per gal. discount to dealers at Fort Worth.

**4c per gal. discount to dealers, March 8.

V. M. & P. NAPHTHA

(Changes ordinarily occur coincident with gasoline price changes)

	Oleum Spirits	V.M. & P. Naphtha	Cleaner Naphtha
Chicago	18	20	20
Detroit	19.7	21.7	21.7
Kansas City	18.2	20.2	20.2
Milwaukee	18.7	*22.7	*22.7
Minneapolis	*22	*24	*24
St. Louis	17.9	19.9	19.9
New York		21	

*Includes 2c state tax.

CANADA

(Per Imperial Gallon, which is 1.2 American Gallons)

	Gasoline T.W.	Gasoline Tax	Gasoline Total T.W.	Gasoline S.S.	Oil T.W.
ONTARIO					
Toronto	23.5	3	26.5	30	23
Ottawa	23.5	3	26.5	30	23
Cochrane	30.5	3	33.5	39	28
Ft. William	24.5	3	27.5	31	25.5
MANITOBA					
Winnipeg	26.5	3	29.5	33	25.5
SASKATCHEWAN					
Regina	29.5	0	29.5	34	28.5
ALBERTA					
Edmonton	28.5	2	30.5	34	27.5
Calgary	26.5	2	28.5	32	25.5
BRITISH COLUMBIA					
Vancouver	21	3	24	28	22
QUEBEC					
Montreal	23.5	3	26.5	30	23
Quebec City	25.5	3	28.5	32	25
Three Rivers	25.5	3	28.5	32	25
NEW BRUNSWICK					
St. John	26.5	3	29.5	34	26
Moncton	26.5	3	29.5	34	26
NOVA SCOTIA					
Halifax	26.5	3	29.5	34	26
Sydney	28.5	3	31.5	38	28
PRINCE EDWARD ISLAND					
Charlottetown	26.5	3	29.5	33	26

Note: In districts surrounding these points 1c additional is added to city price.

Exporters More Interested in Gasoline; Refiners Work on Cargo Inquiries

By Special Correspondent
NEW YORK, March 7

A MUCH keener foreign buying interest was shown in gasoline last week. Few cargo orders appeared, but European consumers are keeping in close contact with markets here. Several large refiners were bidding on a cargo of 55,000 barrels of U. S. Motor and 64-66, 375 e.p. gasoline. Indications were that negotiations would open for two more cargoes this week.

Gasoline prices were weak and competition was keen but refiners feel that prices will decline gradually if they do decline. Export demand for kerosene lagged. Lubricating oils foreign demand was better and prices have held fairly steady. Gas oil was easy. Waxes again decline.

Export Gasoline—New York

No cargo gasoline sales were reported by New York harbor refiners last week. There was an inquiry from a Continental buyer for 45,000 barrels of U. S. Motor and 64-66 375 e. p. gasoline for May shipment to the United Kingdom but no buying was done. The price structure was weak. Most large refiners were asking 11½ cents a gallon.

Stocks are accumulating as domestic demand has fallen off since the recent reductions. Cased gasoline has been moving in a routine way against old contracts. There was an inquiry from the Levant for 40,000 cases of U. S. Motor and 64-66, 375 end point gasoline for April shipment. A leading refiner expects to book this order.

Export Gasoline—Gulf Ports

Several large refiners were negotiating for a cargo of 55,000 barrels of U. S. Motor and 64-66, 375 e. p. gasoline for April-May shipment to France. It is expected that this order will go to a Philadelphia refiner. Prices bid by the Philadelphia company were not divulged but it was intimated that the Motor was quoted at 9 cents and the 64-66 at around 10⅞ cents a gallon.

Gulf refiners were generally asking 9¼ cents a gallon for U. S. Motor; 10 cents for 60-62 400 e. p.; 10½ cents for 61-63 390 e. p. and 11 cents for 64-66 375 e. p. Cased gasoline was quiet. Prices were easier. U. S. Motor was $1.90 a case and 64-66 375 e. p. at $2.10 a case in cargo lots.

Export Kerosene—New York

Export demand for kerosene was light last week. Continental buyers have been confining their purchases to small lots of kerosene in drums for prompt shipment. Prices were weak although 41-43 prime white was still quoted at 9 cents a gallon and 43-45 water white at 9¼ cents a gallon. Stocks are accumulating. Clearance of cased kerosene against contracts has been fairly large. A Chinese buyer was inquiring for 25,000 cases of prime and water white for April shipment but this is still pending.

Export Kerosene—Gulf Ports

Gulf refiners reported a dull kerosene market. Export buyers were disinterested and no cargo sales developed. Competition was keen. Prime white 41-43 gravity was offered freely at 7 cents a gallon while 44 water white failed to attract buyers at 8½ cents. European requirements are not heavy in spring and refiners do not expect any heavy buying until the Continental marketers begin to buy for their fall needs.

Cased kerosene demand was more spirited. A leading Independent refiner sold 55,000 cases of prime and water white kerosene for April-May shipment to Australasia. Another refiner expects to book an order for 75,000 cases for April shipment to the Far East. Prime white was quoted at $1.60 a case and water white at $1.70 a case.

Wax Market—New York

Demand for paraffin waxes again slumped and prices were slightly lower. Export buying was practically at a standstill. Although inquiries were more numerous. Domestic wax prices are more in line with Asiatic prices. White crude scale 122-124 A.m.p. was steady at 4 cents a pound Saturday.

Wax Market—Gulf Ports

Conditions were less favorable last week. The numerous export inquiries reported the previous week failed to materialize and demand was mainly for lots of 10 and 15 tons for nearby delivery. European buyers are still feeling out the market but in a purely academical way. South American buyers have been operating sparingly. White crude scale wax 124-126 A.m.p. was freely offered at 4 cents while semi-refined 124-126 was quoted at 4.10 cents. Fully refined grades were quoted as follows: 123-125 and 125-127 A.m.p. 4.60 cents; 128-130 A.m.p. at 4.65 cents; 133-135 A.m.p. at 5½ cents and 135-137 A.m.p at 6⅛ cents. Yellow crude scale, 124-126 A.m.p. was held at 4 cents a pound.

Lubricants—New York

Domestic demand for lubricating oils held up fairly well last week in face of the decline in crude oil prices and the slump in the majority of other refinery products. Prices were a shade easier but no important revisions were made. Pennsylvania 600 steam refined unfiltered cylinder oil was still quoted at 19 cents a gallon in barrels, New York. The export inquiry for these oils was more active but foreign buying was mainly in lots of 300 and 400 barrels. French buyers are keenly interested in Pennsylvania lubricants at present. Paraffin oils were quiet. Neutral oils, however, are in better demand. Stocks of these oils abroad are not large and French, German and British buyers are more interested than a week ago.

Lubricants—Gulf Ports

A slightly easier undertone was noticeable in this market but no reductions worthy of special mention developed although there was talk of price shading until the crude cut prices had been unusually steady for several months. Foreign buyers now are more disposed to withhold orders. Domestic demand was less active.

Bunker Oil—New York

Grade C was one of the few firm petroleum products. Demand continued active and New York harbor refiners were firm at $1.75 a barrel refinery and $1.81½ a barrel f. a. s. New York harbor. No new contracts were heard of but the demand for spot oil continued to be spirited regardless of the depression in other products. Diesel oil was in good demand at $2.50 a barrel f. o. b. refinery. There was a more urgent call for immediate deliveries than in the preceding week.

Bunker Oil—Gulf Ports

While some factors reported a slightly easier undertone prices were well maintained and no cargo offerings were heard of below $1.50 to $1.55 a barrel for grade C f. o. b. New Orleans. For bunkering the price was $1.65 a barrel New Orleans. At Tampico grade C was held at $1.60 for bunkering, including taxes. No cargo offerings were made at this port. Heavy Panuco crude oil was nominally held at $1.40 a barrel f. o. b. Tampico, taxes to be added.

Gas Oil—New York

Gas oil was easier last week. New York Harbor refiners were asking 6 cents a gallon for 28-34 at the refineries while 36-40 was quoted at 6¼ cents a gallon, same basis. The export demand was light. Stocks are not heavy, however, and no price slashing is looked for.

Gas Oil—Gulf Ports

Demand for gas oil for export was slightly more active and it was persistently rumored that a leading refiner had sold a Scandinavian buyer 40,000 barrels of 26-28 straw color gas oil for March-April shipment at 5¼ cents a gallon. Confirmation of this sale was lacking. The asking price for 32 plus dark gas oil was 4⅞ cents a gallon. Stocks are large and there were rumors of shading. Domestic demand for gas oil lagged and orders were lighter than in the preceding week.

Petrolatums

Demand for snow white petrolatum was more spirited last week and underlying conditions are gradually improving. Most large export buyers are showing more interest. British and French manufacturers of sunburn creams and other toilet preparations are expected to operate on a large scale shortly.

Trade Volume Continues Larger Than in 1926

WASHINGTON, Mar. 5.—Measured by check payments, the dollar volume of business in the last week of February was larger than in the corresponding week of 1926, according to the Department of Commerce. Wholesale prices continued to average lower, both as compared with the preceding week and the corresponding period of 1926.

Loans and discounts of Federal Reserve member banks showed a slight increase over the preceding week and were substantially larger than a year ago. The Federal Reserve ratio was higher than at any time in more than two years. Interest rates on time money, although averaging lower than last year, were higher than in the previous week.

Prices for stocks on the New York Stock Exchange continued to average higher as compared with both prior periods. Interest rates on call loans, although lower than last year, averaged higher than in the preceding week. Business failures, although less numerous than in the previous week, were greater than a year ago.

Production of bituminous coal in the third week of February was smaller than in the preceding week, but larger than a year before. Beehive coke production, on the other hand, was larger than in the previous week and smaller than a year ago. The production of lumber, although smaller than last year, was larger than in the preceding week.

Distribution of goods, as seen from data on carloadings, was greater than last year.

THERMOPOLIS, WYO.—Hole & Channell, who operate here, have contracted with the Northwestern Petroleum Co., Osage, Wyo., to use part of the latter's plant for the manufacture of lube stock, according to F. W. Palis, treasurer and manager of the Northwestern company at Osage.

Complete Export Markets

New York Export Market

GASOLINE	Mar. 7	Feb. 28
U. S. Motor Bulk Ref.	11½	11½–11¾
U. S. Motor cases	26.65	–26.65
KEROSENE		
43-45 150 W.W. Bulk Ref.	09¾	–09¾
41-43 Prime White Bulk Ref.	09.	–09.
43-45 150 W.W. Cases	19.15	–19.15
42-44 110 S.W. Cases	18.65	–18.65
GAS OIL		
36-40, Bulk Refinery	–06¼	–06¼
28-34, Bulk Refinery	–06	–05¾
MEXICAN BUNKER OIL		
Grade C. f. o. b. ref. Bulk	–1.75	–1.75
Diesel Oil f. o. b. ref. Bulk	–2.50	–2.50

LUBRICATING OILS

The following prices are cooperage basis f. o. b. New York, products being manufactured by inland refineries.

CYLINDER OILS (Bbls.)

1 inch Immersion Test; All Penna. Products

Bright Stock dark	43½	–43½
Filtered D 600	34½	–34½
Filtered E 600-Warren	28	–28
Unfiltered 600 s. r.	19 –20	19 –20
Unfiltered 650 s. r.	24½	–24½
600 Flash s. r.	27	–28
630 Flash	38	–38

RED PARAFFIN (Bbls)

(Viscosity at 70)

300 vis. No. 5 color	–19½	–19½
250 vis. No. 5 color	–18	–18
475 Viscosity. No. 5 color	–23	–23

NEUTRAL OILS (Bbls.)

(Viscosity at 70)

200 vis. at F.Pale. No. 3 color	–42¾	–42¾
180 Pale. No. 3 color	–38	–38
150 Pale. No. 3 color	–36½	–36½

BLACK OIL (Bbls.)

25-30 cold test	13¼	–13¼
15 cold test	14¼	–14¼

MEDICINAL OILS

(Includes Price of Drums)
(Penna. Stocks)

	Mar. 7	Feb. 28
Domestic 875-.885 s. g.	– .85	– .85
Domestic 865-.870 s. g.	.75– .80	.75– .80
Russian 885-.890 s. g. 325-330 vis.	1.00–1.10	1.00–1.10

WAXES

(Penna. Stocks)
(In Cents per Pound, F. A. S. Carload Lots)

WHITE CRUDE SCALE (Shipped in Bbls.)

122-124 A. m. p.	–4	–4.45
124-126 A. m. p.	–4.10	–4.45

FULLY REFINED (Shipped in Burlap Bags)

123-125 A. m. p. Philadelphia.	–4.65	–04¾
125-127 A. m. p.	–4.65	–04¾
128-130 A. m. p.	–04¾	–4.80
130-132 A. m. p.	–04⅞	–4.90
133-135 A. m. p.	–05¾	–05¾
135-137 A. m. p.	–06	–06

YELLOW CRUDE SCALE

124-126 A. m. p.	.04⅛	–04⅛

PETROLATUMS

(Penna. Stocks)
Per Pound

Dark Green	01⅞	01⅞
Veterinary	03⅛	03⅛
Light Amber	03¾	03¾
Dark Amber	03¾	03¾
Cream	06	06
Lily White	07¾	07¾
Snow White	08⅛	08⅛

Gulf Export Market

GASOLINE
F. O. B. Seaboard
(Shipments of 20,000 Bbls. and over)

	Mar. 7	Feb. 28
U. S. Motor, Bulk	09¼	–.09¼
60-62 400 e. p. Bulk	10	–.10½
61-63 390 e. p. Bulk	10½	–.11
64-66 375 e. p. Bulk	11	–.11¾
U. S. Motor, Cases (cargo lots)	1.90	–1.95
64-66 Cases (cargo lots)	2.15	2.10
KEROSENE		
Water White, 43-45 Bulk	08½ 09	–09¼
Prime White, 41-43 Bulk	07	–07½
Water White, cases (cargo lots)	1.70	1.70
Prime White, cases (cargo lots)	1.60	1.60
DOMESTIC GAS AND BUNKER OIL		
26-28, gravity, Bulk*	05–05¼ 05	–05¼
32 plus, bulk, Dark	04⅞	–04⅞
Grade C, Bunker oil	1.65	–1.65
Cargoes	1.55	–1.55

*Translucent through neck of a 4 oz. bottle.

MEXICAN CRUDE AND BUNKER OILS
F. O. B. Steamer Tampico

Heavy, Panuco crude Taxes to be added	nominal	nominal
Grade C, Bunker oil Taxes paid cargoes	nominal	nominal
Grade C, Bunker oil, F. O. B. Tampico. For Bunkering Purposes, taxes paid	1.60	–1.60

SOUTH TEXAS
(Viscosity at 100° F; cold test 0)
(Tanker, F. O. B. Houston)

*LUBRICATING OILS	Mar. 7	Feb. 28
100 Vis. No. 2 Unfiltered Pale.	08	08
150 Vis. No. 2½ Unfiltered Pale	10	10
200 Vis. No. 3 Unfiltered Pale.	10½	10½
300 Vis. No. 3 Unfiltered Pale.	12	12
500 Vis. No. 3½ Unfiltered Pale	13½	13½
200 Vis. No. 5½ Red Oil	09½	09½
300 Vis. No. 5½ Red Oil	10½	10½
500 Vis. No. 6 Red Oil	12	12

*These prices are entirely nominal owing to wide fluctuations.

Pacific Export Market

(Cargo lots quotations at seaboard, Los Angeles Gravity test on A. P. I. scale)

	Mar. 7	Feb. 28
Gasoline, U. S. Motor— 53°-55°	8½-9	8½-9
Gasoline, U. S. Motor— blends and special cuts	9½-11	9¼-10
Gas Oil, 30°—34° per bbl.	$1.22½-1.30	1.30-1.35
Diesel Oil, 27°—plus per bbl.	$1.00-1.15	1.00-1.15
Bunker Oil, 14°—18° bbls.	$ .80-1.00	.80-1.00
Fuel Oil, 14°—18° per bbl.	$ .80-1.00	.80-1.00
Kerosene, W. W. 38°—40° per gal., 125-150 flash test	.06 –06½	.05½– .06
Cased Goods		
Gasoline, U. S. Motor	$2.25-2.40	–2.25
Kerosene, W. W. 38°—40° per case, 125-150 flash	$1.50-1.60	$1.45-1.55

N. Y. Domestic Market

The following light oil, gas and fuel oil prices are F. O. B. New York refineries, being products made from Domestic (including California) and Mexican Crudes.

	Mar. 7	Feb. 28
Gasoline:—		
California Motor, cargoes laid down N. Y.	11½	–11½
U. S. Motor Tank Cars Delivered greater N.Y.	–12½	12½–12¾
U. S. Motor Tank Cars Bayonne	11½	11½–11¾
U. S. Motor Tank Cars, *Atlantic Seaboard Terminals.	–11½	11½–11¾
Kerosene:—		
43-45 150 W. W Tank Cars del'd greater N.Y.	–10¼	–10¼
41-43, Bulk Ref Prime	–09	–09
Fuel Oils:—		
Grade C Bunker f.o.b. N.Y Ref	–1.75	–1.75
Diesel Oil f. o. b. Refinery	–2.50	–2.50
Gas Oil, 36-40, Bulk Refinery	–06¼	–06¼
Gas Oil, 28-34, Bulk Refinery	–06	–06
Furnace Oil 38-42, Bulk, Refinery	–07½	–07½

*New York, Philadelphia, Portsmouth, Va. Charleston, S. C.

Crude Oil Prices, as Posted by Major

EASTERN FIELDS

(Posted by Joseph Seep Purchasing Agency)

Penna. Grade Oil in New York Transit Lines (Allegheny, N. Y. District)	$3.15
Bradford District Oil in National Transit Lines (Bradford District)	3.15
Penna. Grade Oil in National Transit Lines (Other Pennsylvania)	3.05
Penna. Grade Oil in Southwest Penna. Pipe Lines (Other Pennsylvania)	3.05
Penna. Grade Oil in Eureka Pipe Lines (West Virginia)	3.00
Penna. Grade Oil in Buckeye Pipe Lines (Macksburg, O. district)	2.85
Keister Grade in National Transit Lines (Butler Co.)	1.25
Cabell Grade in Eureka Pipe Lines (West Virginia)	1.55
Corning Grade in Buckeye Pipe Lines (Ohio)	1.85
Corning, O. heavy grade	1.75
*Somerset Oil in Cumberland Pipe Lines (Kentucky)	1.65
Ragland Grade in Cumberland Pipe Lines (Kentucky)	.95

*Somerset oil run prior to Oct, 1, 1922 takes price of 6 cents lower than above quotations.

(Posted by Stoll Oil Refining Co.)

Oil City, Ky. oil in Stoll lines	$1.80

CENTRAL STATES FIELDS

Posted by Ohio Oil Co.

Effective March 7, 1927

Wooster	$1 90	Plymouth	$1.43
Lima	1.84	Western Kentucky	1.46
Waterloo	1.35	*Canadian Petrolia	2.24
Indiana	1 61	*Oil Springs	2.31
Princeton	1 73	*Posted by Imperial Oil Ltd.	
Illinois	1.73		

OKLAHOMA, KANSAS And NORTH TEXAS

Prices of Prairie Oil & Gas Co.

(In Oklahoma, Kansas, North and East Central Texas)

Effective March 5, 1927

28-28.9	$1 23	34-34.9	$1 41
29-29.9	1.26	35-35.9	1 44
30-30.9	1.29	36-36.9	1 47
31-31.9	1 32	37-37.9	1.50
32-32.9	1 35	38-38.9	1.53
33-33.9	1.38	39-39.9	1.56
40-40.9	$1 59	47-47.9	$1 80
41-41.9	1 62	48 48.9	1 83
42-42.9	1.65	49 49.9	1 86
43-43.9	1 68	50-50 9	1 89
44-44.9	1.71	51-51.9	1 92
45-45.9	1.74	52 and above	1 95
46-46.9	1.77		

Above schedule met on March 5 by all major purchasers.

Humble Oil & Refining Co. Prices
(Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona crudes all in Texas.)

March 7, same schedule as Prairie in above fields, except that Humble is paying 3c less for each degree of gravity on oil below 28°.

Mirando, Tex	$1 25

Magnolia Petroleum Co.
(In Oklahoma, Kansas and North and East Central Texas)

March 5, same schedule as Prairie, excepting that Magnolia is paying $1. 0 for all oil below 28° gravity.

Magnolia's Mid-Continent schedule also applies in Panola and Iatan, Tex. Districts, effective March 5.

Corsicana heavy	$1.10

Carter Oil Co.
(Oklahoma and Kansas)

March 5, same schedule as Prairie.

PANHANDLE, TEXAS

Humble Oil & Refining Co.

Effective March 7

Hutchinson, and Carson Counties	$1 05

Gray and Wheeler Counties:

28-28.9	$ 90	37-37.9	$1 17
29-29.9	.93	38-38.9	1 20
30-30.9	.96	39-39.9	1.23
31 31.9	.99	40-40.9	1 26
32-32.9	1 02	41-41.9	1 29
33-33.9	1 05	42-42.9	1 32
34-34.9	1 08	43-43.9	1 35
35-35.9	1.11	44 and above	1.38
36-36.9	1 14		

WEST TEXAS
(Crane, Upton and Crockett Counties)
Humble Oil & Refining Co.

Effective March 7

Below 26	$ 80	31-31.9	$ 98
26-26.9	83	32-32.9	1 01
27-27.9	86	33-33.9	1 04
28-28.9	.89	34-34.9	1 07
29-29.9	92	35 35.9	1 10
30-30.9	.95	36 and above	1 13

NORTH LOUISIANA—ARKANSAS FIELDS

***Prices of Standard Oil Co. of Louisiana**
Caddo, Homer, Haynesville, Bull Bayou, El Dorado, Crichton and De Soto
Effective Feb. 24, 1927

Below 28	$1 35	40-40 9	$1.88
28-28.9	1 35	41-41.9	1 87
29-29.9	1 39	42-42.9	1.91
30-30.9	1 43	43-43.9	1 95
31-31.9	1 47	44-44.9	1.99
32-32.9	1 51	45 45.9	2 03
33-33.9	1 55	46 46.9	2 07
34-34.9	1 59	47-47.9	2 11
35-35.9	1 63	48-48.9	2 15
36-36.9	1 67	49 49.9	2.19
37-37.9	1 71	50-50.9	2.23
38-38.9	1 75	51-51.9	2 27
39-39.9	1 79	52 and above	2 31
Smackover, below 24			$1.10
" 24 and above			1.25
Bellevue			1 25
Cotton Valley			1 10
**Urania, La			1 10
†Calion (East El Dorado)			.95

*Above prices in N. La. fields first posted on Feb. 22 by Magnolia, The Texas Co. and Gulf. On Feb. 24 above prices in Arkansas were met by The Texas Co., Gulf, La. Oil Refining Corp. (latter met in N. La. fields on this date also), Atlantic Oil Producing Co., Shreveport-El Dorado Pipe Line Co., and on Feb. 25 by Magnolia in fields where these companies purchase.

**Posted by Louisiana Oil Refining Corp.
†Posted by Gulf

STEPHENS, ARKANSAS

Posted by Atlantic Oil Producing Co. and Louisiana Oil Refining Corp.

Below 28	$1 10	30 30.9	$1.28
28 28.9	1 20	31 31.9	1.32
29-29.9	1 24	32 and above	1.36

GULF COASTAL and SPINDLETOP

Posted by Humble Oil & Refining Co.

Effective March 7

Grades A	$1 30	29 29.9	$1.40
Grades B:		30-30.9	1 43
Below 25	1 25	31-31.9	1 46
25-25.9	1 28	32-32.9	1 49
26-26.9	1 31	33-33.9	1 52
27-27 9	1 34	34-34.9	1.55
28-28.9	1 37	35 and above	1.58

Fields classified as A and B are Goose Creek, Hull, Liberty, West Columbia, Orange, Boling and Pierce Junction. All other fields are Grades A only.

Magnolia Petroleum is paying same prices in Spindletop as Humble, except that its top grade is 31-31.9 at $1.75, effective Nov 16.

Gasoline Prices Fall in New York Market

By Special Correspondent

NEW YORK, March 7

DOMESTIC gasoline market was unsettled last week. Prices continued downward and buying was light. Stocks of gasoline are piling up along the Atlantic Seaboard. There is keener competition among the refiners and the trade was rife with rumors of further impending tank wagon and tank car price reductions.

California gasoline is much less of a factor as the high freight rates make it almost impossible for factors bringing this gasoline around to compete with Group 3 and Pennsylvania gasoline. California motor in bulk cargoes laid down at Atlantic seaboard ports is still 11½ cents a gallon while New York harbor refiners were offering U. S. Motor gasoline at 11½ cents a gallon.

In tank cars delivered to nearby buyers U. S. Motor was quoted at 12½ cents a gallon. Upstate buyers, however, have been buying for immediate needs only. This condition is prevailing in the Gulf region also and Gulf refiners were freely offering U. S. Motor at 9¼ to 9½ cents a gallon refinery without attracting buyers.

Bulk kerosene was easier last week. The slump in crude oil has tended to depress this market and many buyers who had been on the verge of taking larger quantities withdrew from the market pending further developments. New York harbor refiners were still quoting 41-43 prime white at 9 cents a gallon, refinery, and 10 cents in tank cars delivered to the nearby trade while water white 43-45 gravity was held at 9¼ cents refinery and 10¼ cents delivered to nearby consumers.

Actual consumption of kerosene is fully up to expectations but the general weakness in petroleum has brought about hand-to-mouth buying. Gulf refiners reported a fairly good demand for kerosene regardless of the weakened condition of the market. Stocks have been fairly heavy. Prime white 41-43 was quoted at 7½ cents a gallon but reports had it that 7 cents could have been done. Water white 43-45 was held at 8¾ to 9 cents a gallon refineries and 9¾ to 10 cents a gallon in tank cars delivered to the nearby trade.

Motor Benzol Price Unchanged

NEW YORK, Mar. 7.—Although pure and 90 per cent benzol were reduced one cent a gallon last week, motor benzol was unchanged at 23 cents a gallon, in tank cars at ovens. Demand for motor benzol was slightly better. Large motor fuel blenders have contracted for large quantities of motor benzol for spring and summer deliveries. Stocks of motor benzol are not as heavy as had been expected although production is holding up well.

Purchasers, in All Fields (in Effect, Mar. 7, 1927)

GULF COASTAL and SPINDLETOP
Prices of The Texas Co.

Grades A	$1.40	*Grades B	$1.40
‡Grades B (light crude):			
35-35.9	$1.95	38-38.9	$2.10
36-36.9	2.00	39-39.9	2.15
37-37.9	2.05	40 and above	2.20

*Grades B include all heavy crudes which do not meet tests for Grades A or for Gulf Coast light crude.

‡The Texas Co.'s gravity and price schedule on all below 35° is same as Humble's postings on Grades B.

ROCKY MOUNTAIN FIELDS
Prices of Ohio Oil Co. and Midwest Refining Co.
(Salt Creek prices effective March 5)

‡Salt Creek 29-29.9	$1.26
" " 30-30.9	1.29
" " 31-31.9	1.32
" " 32-32.9	1.35
" " 33-33.9	1.38
" " 34-34.9	1.41
" " 35-35.9	1.44
" " 36-36.9	1.47
" " 37 and above	1.50
Elk Basin	1.55
Grass Creek light	1.55
Big Muddy	$1.42
Lance Creek	1.55
Rock Creek	1.42
Mule Creek	1.30
Rex Lake	1.10
‡Osage	1.55
‡Cat Creek, Mont	1.55
Sunburst, Mont	1.35
‡Hogback, N. Mex	2.00
Artesia, N. Mex	1.20

‡Posted by Midwest Refining Co. Midwest also buys Grass Creek light and Elk Basin.

The Texas Co. buys Salt Creek and Big Muddy crude.

CALIFORNIA
Standard Oil Co. of California

Gravity	Signal Hill Huntington Beach	Ingle-wood Torrance	Whittier La Habra	Newhall, McKittrick, Kern River	Olinda-Brea Canon, Richfield	Athens-Rosecrans Dominguez	Monte-bello	Coyote Hills	Santa Fe Springs	Midway Sunset Elk Hills	Lost Hills	Coalinga	Wheeler Ridge	Santa Maria	Ventura
14-14.9	$ .85	$ .85	$ .85	$ .75	$ .85	.....	$ .85	$ .85	.....	$ .75	$ .75	$ .75	$ .75	$ .85	$ .85
15-15.9	.87	.87	.85	.75	.87	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
16-16.9	.90	.90	.85	.75	.90	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
17-17.9	.94	.94	.85	.75	.94	.....	.85	.85	.....	.75	.75	.75	.75	.85	.85
18-18.9	.98	.98	.86	.75	.98	.....	.86	.86	.....	.75	.75	.75	.75	.85	.85
19-19.9	1.04	1.04	.87	.75	1.04	.....	.87	.87	.....	.75	.75	.75	.75	.85	.85
20-20.9	1.10	1.10	.89	.....	1.10	.....	.89	.90	.....	.82	.82	.79	.78	.90	.90
21-21.9	1.16	1.16	.91	.....	1.16	.....	.91	.98	.....	.90	.90	.86	.81	.97	.97
22-22.9	1.22	1.22	.94	.....	1.22	.....	.94	1.06	.....	1.00	1.00	.93	.85	1.04	1.04
23-23.9	1.28	1.28	.....	.....	1.28	.....	.97	1.14	.....	1.11	1.11	1.00	.89	1.11	1.11
24-24.9	1.34	1.34	.....	.....	1.34	$1.34	1.01	1.22	$1.02	1.22	1.22	1.07	.93	1.18	1.18
25-25.9	1.40	1.40	.....	.....	1.40	1.40	1.05	1.30	1.08	1.33	1.33	1.14	.97	1.25	1.25
26-26.9	1.46	1.46	.....	.....	1.46	1.46	1.09	1.38	1.16	1.44	1.44	1.21	1.01	1.32	1.32
27-27.9	1.52	1.52	.....	.....	1.52	1.52	1.13	1.46	1.24	1.55	1.55	1.28	1.05	1.39	1.39
28-28.9	1.58	1.58	.....	.....	1.58	1.58	1.17	1.54	1.32	1.66	1.66	1.35	.....	1.46	1.46
29-29.9	1.64	.....	.....	.....	1.64	1.64	1.21	1.62	1.40	1.77	1.77	1.42	.....	1.53	1.53
30-30.9	1.70	.....	.....	.....	1.70	1.70	1.25	1.70	1.48	1.88	1.88	1.49	.....	1.60	1.60
31-31.9	1.76	.....	.....	.....	.....	1.76	.....	.....	1.60	1.99	1.99	1.56	.....	.....	1.67
32-32.9	1.84	.....	.....	.....	.....	1.84	.....	.....	1.72	2.10	2.10	1.63	.....	.....	1.73
33-33.9	.....	.....	.....	.....	.....	1.92	.....	.....	1.84	2.21	2.21	1.70	.....	.....	1.79
34-34.9	.....	.....	.....	.....	.....	2.00	.....	.....	1.96	.....	2.32	1.77	.....	.....	1.85
35-35.9	.....	.....	.....	.....	.....	2.08	.....	.....	2.08	.....	.....	1.84	.....	.....	1.92
36-36.9	.....	.....	.....	.....	.....	2.16	.....	.....	2.16	.....	.....	.....	.....	.....	.....
37-37.9	.....	.....	.....	.....	.....	2.24	.....	.....	2.24	.....	.....	.....	.....	.....	.....
38-38.9	.....	.....	.....	.....	.....	2.34	.....	.....	2.34	.....	.....	.....	.....	.....	.....
39-39.9	.....	.....	.....	.....	.....	2.44	.....	.....	2.44	.....	.....	.....	.....	.....	.....
40-40.9	.....	.....	.....	.....	.....	2.54	.....	.....	.....	.....	.....	.....	.....	.....	.....
41-41.9	.....	.....	.....	.....	.....	2.64	.....	.....	.....	.....	.....	.....	.....	.....	.....
42-42.9	.....	.....	.....	.....	.....	2.74	.....	.....	.....	.....	.....	.....	.....	.....	.....

Santa Maria and Ventura Posted by Union Oil Co.

*Union Oil Co. also purchases Long Beach Crude and is maintaining the same gravity and price schedule in that field as the Standard maintains in Signal Hill and Huntington Beach fields. The Union also buys and pays the same prices as the Standard in the Rosecrans-Dominguez fields, on gravities ranging from 14 degrees to and including 24.9 degrees and in Santa Fe Springs, on gravities ranging from 20 to and including 23.9 degrees.

REFINERS' and COMPOUNDERS' SUPPLIES

Following are the average market prices for the week on materials used by refiners and compounders f. o. b. shipping point as effective this date.

Refiners' Supplies

	Mar. 7	Feb. 28
Soda Ash light 58% bags cwt.	$1.32½	$1.32½
Silicate of Soda 60 deg. drums cwt.	-$1.65	-$1.65
Sal Soda wks	.90- 1.10	.90- 1.10
Caustic Soda 76% solid cwt.	- 3.00	- 3.00
Chloride of Lime cwt. works	- 2.00	- 2.00
Sulphuric Acid 60 deg. tank cars f. o. b. shipping point per ton	10.50-11.00	10.50-11.00
Liquid Chlorine tank cars works lb.	- .04	- .04

Compounders' Supplies (Open Market)

Vegetable Oils—

Linseed carloads spot lb.	10.3	10.3
March	10.3	10.3
Tanks, spot	9.6	9.6
*Soya Bean Tanks, Coast lb.	09½	09½
Castor Oil—		
No. 1 Carlots, Bbls	-.14	-.14
No. 3 Carlots, Bbls	-.13½	-.13½
Animal Oils—		
English Degras	-.05¾	-.05¾
Domestic Degras, bbls., carloads lb.	-.04¾	-.04¾
*Horse lb.	-.09	-.09
Oleic Acid—		
Dist Bbls lb.	.09½-.09¾	.09½-.09¾
Saponified Bbls lb.	.09¾-.10	.09¾-.10
Lard Oils—		
Prime		
Winter Strained, to 1¾ ffa. 40-45c.t. lb.	.15½	.15
Extra		
Winter Strained, 2 to 4½ ffa. 40-45c.t. lb.	.13¾	.13¾
Extra 4 to 5 ffa. 40-45c.t. lb.	.12¾	.12¾
Extra No. 1, 7 to 10 ffa. 40-50c.t. lb.	.11¼	.11¼
No. 1 15 to 18 ffa. 40-45c.t. lb.	.11	.11
No. 2 22 to 25 ffa. 40-45c.t. lb.	.10½	.10½
Prime Edible Tallow under 1¾ ffa. 40-45c.t. N.Y. lb.	-.09¼	-.08¾
Tallow acidless lb.	-.11½	-.11½
Lard Stearine lb.	-.16	-.16
Oleo Stearine lb.	-.11	-.09¾
Neatsfoot Oil—		
Pure bbls.-lb.	.12¾	.12¾
Extra do lb.	.11¼	.11¼
No. 1 bbls. lb.	.11	.11
Cold pressed lb.	.16¼	.16¼
Fish Oils—		
Menhaden Oil		
Light pressed gal.	-.60	-.58
White gal.	-.66	-.63
Yellow bleached gal.	-.64	-.61
Whale, extra winter bleached gal.	-.82	-.82
Naval Stores—		
Turpentine, N. Y. gal.	-.71½	-.70¼
Turpentine† gal.	-.65¼	-.63¾
Rosin, B. N. Y. bbl.	10.50	11.00
Rosin, F. N. Y. bbl.	11.70	12.00
Rosin, B† bbl.	9.00	9.00
Rosin, F† bbl.	10.20	10.50
Rosin Oil 1st run gal.	.65	.67
Rosin Oil 2nd run gal.	.70	.72
Pine Tar—		
Kiln Burnt bbl.	16.00	16.00
Retort bbl.	16.00	16.00

†Savannah, Ga., market.
*Nominal.

Alcohol—Denatured—

Formula 5		
Bbls gal.	-35	-35
Drums gal.	-28	-28

OIL STOCKS AND FINANCES

National Petroleum News

Sun Oil Co. Profits Recede in 1926

NEW YORK, Mar. 5.—Net profits of Sun Oil Co. were slightly lower in 1926 than in 1925, being $3,358,899 and $3,602,128, respectively. The average was $2.86 a share on 1,171,145 shares in 1926 and $3.27 a share on 1, 99,776 shares in 1925.

The balance sheet of Dec. 31 shows an increase in cash, and inventories last year and a contraction in investments. Current receivables changed but little. There was a small decline in the funded debt and an increase of $1,800,000 in current liabilities.

Income accounts of the Sun Oil Co. for the last two years compare:

	1926	1925
Gross	$50,797,798	$48,697,402
Expenses, etc.	45,209,063	42,751,625
Operating income	$ 5,588,735	$ 5,945,777
Other income	1,499,797	775,646
Total income	$ 7,088,532	$ 6,721,423
Interest	552,330	675,821
Deprec., & deplet.	2,785,303	2,099,439
Federal taxes	392,000	344,035
Net income	$ 3,358,899	$ 3,602,128
Dividends	1,100,375	836,996
Surplus	$ 2,258,524	$ 2,765,132

Balance sheets of Dec. 31 compare:

ASSETS	1926	1925
Plant	*$31,932,046	$29,612,472
Cash	1,679,228	1,001,723
Accounts, bills rec.	4,541,974	4,531,214
Inventories	12,193,208	9,216,617
Investments	6,570,454	8,603,833
Deferred charges	1,735,895	1,904,090
Total	$58,652,805	$54,869,949
LIABILITIES		
Capital stock	$39,202,026	$36,893,230
Minority interest	9,373	18,995
Funded debt	9,836,000	10,236,000
Accounts, bills payable	5,204,366	3,455,575
Federal taxes	392,000	344,035
Contingent reserve	45,280	.....
Accrued taxes, interest	424,200	364,102
Surplus	3,539,560	3,558,112
Total	$58,652,805	$54,869,949

*After depreciation and depletion.

Houston Oil Doubles Profits in 1926

CLEVELAND, Mar. 5.—Houston Oil Co. with Houston Pipe Line Co. doubled its net profits in 1926 as compared with 1925 net profits. The 1926 net, after all charges and dividends on the preferred stock, was equivalent to $6.77 a share on the $100 common stock, compared with $3.25 a share in 1925.

The company's oil operations were profitable last year, President E. H. Buckner reported to stockholders. It is not operating jointly with Roxana Petroleum Corp. in the Seminole pool in Oklahoma.

Mr. Buckner reported the company had obtained a contract to supply a large sulphur company in Brazoria county, Texas, necessitating the construction of a 54-mile 16-inch pipe line and a compressor station. Demand for gas in the Houston district also increased.

To meet the increased demand it kept most of its rigs drilling on oil wells most of the year, Mr. Buckner wrote, and extended its pipe lines 82 miles into the south Texas gas fields.

The consolidated balance sheet of the two companies of Dec. 31 shows current assets of $2,541,826 and current liabilities of $2,109,788. At the end of 1925 current assets totaled $2,313,743 and current liabilities $825,984. The increase in 1926 liabilities was due, the balance sheet indicates, to advances for pipe line extensions.

Consolidated income accounts for 1926 and 1925 compare:

	1926	1925
Gross earnings	$ 7,258,069	$ 4,851,595
Expenses, ordinary taxes, etc.	2,730,754	2,424,105
Deprec., deplet.	1,385,937	743,577
Operating income	$ 3,141,378	$ 1,683,913
Other income	407,462	307,223
Total income	$ 3,548,840	$ 1,991,136
Dry holes, interest, etc.	1,231,039	606,810
Federal taxes	91,000	34,000
Net profit	$ 2,226,801	$ 1,350,326
Preferred dividends	536,856	536,856
Available for common	$ 1,689,945	$ 813,470

Consolidated balance sheets of Dec. 31 compare:

ASSETS	1926	1925
Property*	$40,131,118	$37,415,535
Houston Gas bonds	450,000	.....
Due from Southwestern Settlement Co.	4,935,327	5,069,053
Timber notes rec.	1,200,000	1,500,000
Adv. on gas contracts	561,630	.....
Sinking fund cash	69	.....
Cash	956,002	844,259
Construction funds	115,434	150,100
Notes, accts. rec.	728,211	466,816
Interest due	2,437	.....
Employes' funds	7,212	9,684
Oil inventory	347,284	516,636
Materials, supplies	385,246	326,249
Prepaid items	448,267	567,169
Total	$50,268,239	$46,865,490
LIABILITIES		
Preferred stock	$ 8,947,600	$ 8,947,600
Common stock	24,968,600	24,968,600
Funded debt	7,104,000	7,000,000
Accrued dividend ctfs.	3,885	5,885
Notes payable	763,547	.....
Due on P. L. extension	460,622	.....
Accounts payable	460,354	505,391
Accrued taxes	311,311	206,844
Accrued interest	113,954	11[illegible]50
Contingent reserve	77,000	77,000
Surplus	7,057,365	5,040,410
Total	$50,268,239	$46,865,490

*After depreciation and depletion.

Prairie Pipe Line Co.—All directors and officers re-elected at annual meeting.

S. O. Nebraska Shows Smaller Earnings

CLEVELAND, Mar. 5.—Indicated earnings in 1926 of the Standard Oil Co. of Nebraska were $917,756 or $5.03 a share on the $25 stock outstanding at the end of the year. The company does not issue an earnings statement but after allowing for the stock dividend of 50 per cent paid last April there was an increase of $233,779 in this account. Cash dividends paid amounted to $683,977.

In 1925 the indicated earnings were $983,047, or $32.63 a share on the old $100 stock, which was equivalent to $5.53 a share on the present stock.

Balance sheets of Dec. 31 compare:

Assets	1926	1925
Plant*	$2,932,249	$2,653,231
Merchandise	1,050,840	999,746
Cash	963,574	877,506
Accounts receiv.	328,155	392,770
Investments	1,989,088	2,031,054
Total	$7,263,906	$6,944,309
Liabilities		
Capital stock	$4,559,850	$3,012,400
U. S. tax and annuities reserve	167,129	154,134
Accounts payable	496,910	465,336
Surplus	2,040,016	3,312,437
Total	$7,263,906	$6,944,309

*Less depreciation.

Shaffer Oil & Refining Co.—Net earnings in 1926 were $6,045,575 compared with $4,428,406 in 1925.

Pantepec Oil Co. of Venezuela—Fergus Reid, George A. Holmes and David M. Folsom elected directors. Mr. Folsom was formerly assistant to president of General Petroleum Corp.

Pan American Petroleum Co.—$15,000,000 first mortgage 15-year convertible 6 per cent sinking fund gold bonds, due Dec. 15, 1940, admitted to New York Stock Exchange list.

California Petroleum Corp.—$8,000,000 12-year convertible 5 per cent sinking fund gold debentures, due Feb. 1, 1927, listed on New York Stock Exchange.

General Petroleum Corp.—$5,658,000 additional first mortgage 5 per cent sinking fund gold bonds due Aug. 15, 1940, listed on New York Stock Exchange.

North American Oil Consolidated—Net profit in 1926 was $1,592,650.

Cities Service Co.—Net income in January available for reserves and common stock was $2 255,269 compared with $1.125.242 in January, 1926. For the 12 months ended Jan. 31 net income available for reserve and common stock was $16,741,493, compared with $11,599,211 in preceding 12-month period.

Transactions In Oil Shares on New York Stock Exchange

1926 High	1926 Low	1927 High	1927 Low		Listed Capital	Par Value	Stocks	D.v. Rate	Last Paid	Transactions Week Ended Mar. 5 Sales	First	High	Low	Last	Ch'ge
32⅞	24¼	37⅝	31½	(sh)	814,800	N.P.	Amerada Corp	50cQ	Jan. 31, 27	11,800	35¼	36¼	34	34⅛	— 1⅜
74	39⅞	60½	35⅛	(sh)	200,000	N.P.	American Republics			100	46	46	46	46	— 4
59½	44¾	50¼	48¾	$	56,000,000	$ 25	Associated Oil	50cQ	Dec. 24, 26						
128⅜	97	117⅜	107		50,000,000	100	Atlantic Refining		June 16, 24	29,000	113	*117⅜	112⅛	115	+ 3
120	115½	117	115½		20,000,000	100	do pfd	$1½Q	Feb. 1, 27						
33½	23½	35½	27		25,000,000	25	Barnsdall Corp. A	50cQ	Jan. 3, 27	101,300	35¼	35½	33¼	33½	— 1¾
29½	22½	32½	25		3,715,775	25	do B	50cQ	Jan. 3, 27	13,600	32⅛	32½	31	32	+ ⅜
38⅛	29¾	32⅞	29½		47,709,175	25	California Petroleum	50cQ	Mar. 1, 27	19,100	30¾	30⅜	†29½	29⅝	— ⅜
94¾	50	96¾	77½		23,721,200	100	General Asphalt			233,400	93¾	* 96¾	91¼	91¼	— 1½
140½	94⅞	144⅜	120		7,294,000	100	do pfd	$1¾Q	Mar. 1, 27	3,400	140	*144⅜	137	138	+ ¾
72	50¼	120½	60⅛		25,000,000	100	Houston Oil			92,500	110	*120½	105	119	+15½
34	19⅜	32¾	28¾	(sh)	500,000	N.P.	Independent Oil & Gas	25cQ	Jan. 17, 27	15,300	30¾	30¾	†28¾	29⅛	— 1
13¾	7¾	10⅜	7⅝	$	3,283,960	$ 10	Indian Refining		Dec. 15, 20	3,200	8⅝	8⅝	8⅛	8¼	— ⅜
12½	8	9¾	7⅝		4,546,490	10	do ctfs			3,900	8⅞	8⅞	8	8¼	— ⅜
104	90	107	102		2,296,400	100	do pfd		Dec. 15, 21						
¾	¼				1,644,760	10	Kansas & Gulf								
24½	19⅜	22	20½	(sh)	3,983,629	N.P.	Lago Oil & Transport			3,300	21¾	22	21	21	— ¾
19¾	12	18⅛	15	(sh)	1,184,238	N.Pl.	Louisiana Oil Refining			8,600	15¾	15¾	†15	15⅛	— ⅝
98	93	97	95	$	4,000,000	$100	do pfd	$1½Q	Feb. 15, 27	100	95⅝	95⅝	95⅝	95⅝	+ ⅛
28⅞	16½	22¾	18	(sh)	330,000	N.P.	Maracaibo Oi			800	19⅛	19⅛	18½	18½	— 1
63⅜	49¼	58½	54⅜	(sh)	1,928,408	N.P.	Marland Oil Co	$1Q	Dec. 31, 26	79,600	56⅞	57	†54⅜	54¾	— 1⅜
				$	45,942,800	$100	Mexican Petroleum	$3Q	Jan. 20, 27						
					12,000,000	100	do pfd	$2Q	Jan. 20, 27						
13¾	6	9¼	6⅜	(sh)	945,939	N.P.	Mexican Seaboard		Nov. 15, 24	6,300	8¾	9⅛	8⅛	8¾	+ ¾
37	27½	39⅜	34⅜	(sh)	1,357,800	N.P.	Mid-Continent Petroleum		Aug. 1, 23	32,600	35¾	36	†34⅜	35	— ⅝
104¼	90	105	103	$	6,718,000	$100	do pfd	$1¾Q	Mar. 1, 27	200	103¾	103¾	103	103	— ½
2½	¾	3¼	1⅝		25,415,540	10	Middle States		July 1, 23	19,100	2⅞	3	2¾	2⅞	0
1⅜	½	2¼	1⅛		4,384,680		do ctfs			4,100	1⅝	2	1⅝	2	+ ⅜
2¼	1	1⅞	1⅜	(sh)	3,500,000	N.P.	Pacific Oil		Jan. 20, 26	6,100	1½	1⅝	†1⅜	1⅜	— ⅜
76½	56½	65⅞	60¾	$	48,307,400	$ 50	Pan American P. & T	$1.50Q	Jan. 20, 27	2,900	62⅛	62⅝	61½	62	— 1½
78⅛	56⅞	66⅛	61		100,546,350	50	do B	$1.50Q	Jan. 20, 27	30,000	63⅜	63¾	62¼	62⅜	— 1¾
46	30	37⅜	30⅜	(sh)	400,000	N.P.	Pan American Western B	50cQ	Jan. 30, 27	11,700	35⅛	35⅛	†30⅜	30⅞	— 4⅝
8⅜	4½	18⅜	14	(sh)	198,770	N.P.	Panhandle P. & R			1,300	15¾	15¾	14⅝	14⅝	— ¾
99⅛	51	81¾	70¼	$	2,935,200	$100	do pfd		July 2, 23	100	74	74	72	72	— 2⅜
57⅜	40	60¾	54¾	(sh)	2,406,796	N.P.	Phillips Petroleum	75cQ	Jan. 1, 27	136,700	57⅞	58	56⅛	56⅞	— 1⅜
1⅞	½	¾	⅜	$	29,622,925	$ 25	Pierce Oil Corp			1,800	¾	¾	⅜	⅜	— ⅜
27⅛	11⅛	17¾	14¼		15,000,000	100	do pfd		Feb. 1, 22						
7	2¼	3⅞	3	(sh)	2,500,000	N.P.	Pierce Petroleum			1,200	3¼	3⅜	3	3	— ⅛
20¾	11	32	16¾	$	11,467,850	$ 50	Producers & Refiners		Sept. 15, 23	11,900	28⅛	28¾	25⅛	26	— 2
41¾	30¾	50	36⅞		2,845,350	50	do pfd		May 1, 25	330	46½	48	45⅞	46½	— 1⅜
31	25¼	33⅛	27¼		75,959,250	25	Pure Oil Co	$7½cQ	Mar. 1, 27	287,800	31⅞	* 33½	31⅝	32⅛	+ ⅜
112¾	106	113	111⅜		13,000,000	100	do 8% pfd	$2Q	Jan. 1, 27	200	113	113	113	113	0
57⅜	47⅜	54½	50½	(sh)	646,502	13.40	Royal Dutch, N. Y. shares	$1.33¾	Jan. 28, 27	5,900	51½	52½	51¼	51¾	+ ¼
40⅝	40½	47⅞	44½	(sh)	86,962	£2	Shell Transport & T	96.7c	Jan. 17, 27	300	47⅜	47⅜	47⅜	47⅜	+ ⅜
31	24	31¾	28¾	(sh)	10,000,000	N.P.	Shell Union Oil	35cQ	Dec. 31, 26	17,200	30⅝	31⅛	30⅛	30⅛	0
114	103	108½	107½	$	18,350,400	$100	do pfd	$1½Q	Feb. 15, 27	500	108⅜	108½	108⅜	108½	0
28⅝	15⅛	22¾	19		7,208,080	10	Simms Petroleum	50cS.A.	Jan. 3, 27	7,600	22	22	20⅛	20⅛	— 1⅞
24⅞	16¾	22¾	19	(sh)	4,500,782	N.P.	Sinclair Consolidated		May 31, 24	46,200	21¾	21⅜	19½	19½	— 1⅜
99½	90	103¼	97	$	17,210,000	$100	do pfd	$2Q	Feb. 15, 27	2,200	102⅛	102½	99¾	99¾	— 2¼
37⅛	26⅝	37⅜	33⅞		27,396,590	25	Skelly Oil Co	50cQ	Dec. 15, 26	25,700	36⅞	36⅞	†33⅞	34	— 2¼
63⅝	52⅝	60¾	57½	(sh)	13,016,484	N.P.	S. O. California	50cQ	Dec. 15, 26	18,300	58⅛	58⅛	†57½	57⅝	— ⅛
46⅜	37⅜	41⅜	37¾	$	517,397,550	$ 25	S. O. New Jersey	25cQ	Dec. 15, 26	34,400	39⅜	39⅜	38	38	— 1
119⅛	115	116¼	114⅝		206,958,970	100	do pfd	$1¾Q	Dec. 15, 26	400	114⅝	114⅝	†114⅝	114⅝	0
33¼	32½	34⅜	31¾		419,028,275	25	S. O. New York	40cQ	Dec. 15, 26	26,700	32½	32½	†31¾	31¾	— ⅜
41⅝	30⅛	34⅜	31¾	(sh)	1,105,384	N.P.	Sun Oil	25cQ	Dec. 15, 26	1,600	32⅜	32¾	†31¾	32	— 1
5¼	1	6½	4½	(sh)	1,121,368	N.P.	Superior Oil Corp		Dec. 20, 20	10,700	5¾	5¾	5⅛	5¼	— ⅛
58	48	58	55½	$	16,328,725	$ 25	The Texas Co	75cQ	Dec. 30, 26	400	56½	57¼	57¾	57¾	0
57⅞	53⅛	58	55⅞		141,467,575	25	The Texas Corp	75cQ	Jan. 1, 27	32,800	56⅝	57¼	56¾	56⅝	— ⅜
19½	12	16⅜	14⅛		8,380,340	10	Texas Pacific Coal & Oil		June 30 23	7,500	15	15¼	14⅜	14½	— ⅛
39¼	27	29⅛	27	(sh)	2,157,991	N.P.	Tide Water Oil Co	$7½c	Dec. 31, 26	300	27⅜	27⅝	27	27	0
103	87¼	89½	87½	$	20,705,100	$100	do 5% pfd	$1.25Q	Feb. 15, 27	400	88	88	87¾	87¾	0
5½	3	5	4⅛	(sh)	3,742,029	N.P.	Transcontinental Oil			59,100	4⅞	5	4⅝	4⅞	+ ⅛
58⅜	37⅛	56½	52¼	$	40,690,650	$ 25	Union Oil of California	50cQ	Feb. 10, 27	40,100	52½	52⅝	48⅜	48½	— 3
120⅜	84¼	98¼	94		30,734,000	100	Union Tank Car Co	$1¼Q	Mar. 1, 27	300	96	96	96	96	— 2
29¾	25⅛	27½	25¾	(sh)	490,000	N.P.	White Eagle Oil & Refining	50cQ	Jan. 20, 27	1,900	27	27	26¾	26¾	— ⅜

*New High †New Low xEx-Dividend Total Sales 1,518,830

Cleveland Stock Market

Mar. 6

	Par	Bid	Asked	Last Sale
Canfield Oil Co	$100	.....	.....	110
do pfd	100	.....	101	100
Fred G. Clark Co	10	.....	3	3¼
National Refining Co	25	37½	39	38
do pfd	100	.....	150	150
Paragon Refining Co	25	7	7¼	7¾
do pfd	100	72	.....	75

xEx-dividend

S. O. New York Directors on Tour

NEW YORK, Mar. 5.—Executives of the Standard Oil Co. of New York are on an inspection tour of the company's properties in the Southwest. Their itinerary includes the Panhandle and Seminole. In the party that left New York a week ago are H. C. Folger, chairman, Charles F. Meyer, Peter M. Speer, C. M. Higgins and William B. Walker, directors. They will be joined in the Southwest by Herbert L. Pratt, president.

PITTSBURGH STOCK EXCHANGE

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Mar. 4 Sales	First	High	Low	Last	Ch'ge
.....	.....	8½	6¾	N.P.	Andes Petroleum	.....	.....	.....	.....	.....	.....
8¾	5¾	8½	5¾	$10	Arkansas Nat. Gas	1,763	7½	7¾	7¾	7½	0
.....	.....	90½	79¾	$100	Columbia Gas (w.i.)	215	86	86	85¼	85¼	— ¾
.....	.....	.....	.....		do rts	.....	.....	.....	.....	.....	.....
.....	.....	101¾	95	$100	do pfd w.i	30	101	.....	.....	.....	0
18	14½	17	12¾	$10	Devonian Oil	.....	.....	.....	.....	.....	.....
112¾	105¾	116½	112	$100	Duquesne Lt. 7% pfd	.....	.....	.....	.....	.....	.....
.....	.....	10	5¾	N.P.	Houston Gulf Gas	1,968	6¾	6½	6¼	6⅜	+ ⅛
.....	.....	46	39	25	Lone Star Gas Corp	15,091	44	45¼	42¾	42¾	— ¾
37¼	31	47¾	33¾	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
.....	.....	47½	42	....	do ctfs. of deposit	.....	.....	.....	.....	.....	.....
.....	.....	6¾	5	....	Ohio Oil & Gas	.....	.....	.....	.....	.....	.....
34	26	34	21	25	Oklahoma Nat. Gas	.....	.....	.....	.....	.....	.....
.....	.....	21	19¼	....	do ctfs. of deposit	1,156	21¼	21½	21¼	21½	+ ¼
8¾	5	5¾	3¾	5	Pittsburgh O. & G	.....	.....	.....	.....	.....	.....
9¾	6	10	7½	10	Salt Creek Cons	35	7¾	8	7¾	7¾	— ⅛
13¾	8½	27	8	10	Tidal Osage	8,210	25	26½	25	25½	+ ⅛
.....	.....	45	40	N.P.	Waverly Oil Wks. "A"	30	42	42	42	42	0

PITTSBURGH CURB MARKET

1925 High	1925 Low	1926 High	1926 Low	Par Value	Stocks	Transactions Week Ended Mar. 4 Sales	First	High	Low	Last	Ch'ge
2½	.60	3¾	2½	$5	Colombia Synd	2,000	2¾	2¾	2¾	2¾	— ⅛
.60	.15	.20	.06	5	Duquesne Oil	.....	.....	.....	.....	.....	.....
9	5½	22	22	10	Forest Oil	.....	.....	.....	.....	.....	.....
32¾	64	91½	85	25	Gulf Oil Corp	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	....	Herbert Oil	.....	.....	.....	.....	.....	.....
.....	.....	79	79	100	Houston Gulf pfd	.....	.....	.....	.....	.....	.....
12½	8¾	12	7½	N.P.	Leonard Oil & Dvlp	1,200	9¼	9¼	9½	9½	— ⅛
.....	.....	1⅝	1¼	N.P.	Mountain & Gulf	.....	.....	.....	.....	.....	.....
.....	.....	30¼	29	....	Oklahoma Gas	.....	.....	.....	.....	.....	.....
.47	.20	2	.15	10	Omar O. & G	8,175	2.05	2.05	1.90	1.90	0
.....	.....	2	1¼	5	Pittsburgh Oil Dev	.....	.....	.....	.....	.....	.....
27½	25	33½	20	10	Plymouth Oil	1,325	26½	26½	x26	26½	+ ¼
7	3	7	3	5	States Oil	200	5½	6	5½	6	.....
4	1¾	3½	2	$1	Texon Oil & Land	6,510	3½	3⅝	3½	3½	+ ⅛
.....	9	25¾	8	10	TidalOsage(non-voting)	475	22¾	23¾	22¾	23¼	—1

*New High †New Low xEx-Dividend ‡Ex-Rights

Standard Oil Stock Traded in New York

1926 High	1926 Low	1927 High	1927 Low	Outstanding Capital	Par Value	Stocks	Div. Rate	Last Paid	Transactions Week Ended Mar. 4 Sales	First	High	Low	Last	Ch'ge
21	16⅜	21⅝	19⅞	£ 4,000,000	£ 1	Anglo-American Oil	60¾cS.A.	May 27, 26	2,000	21	21¼	20⅜	20⅜	— ¼
20¼	16½	20½	19⅛	.....	£ 1	do ctfs. non-voting	.....	.....	200	20	20	20	20	0
19	16	20½	19½	.....	£ 1	do voting ctfs	.....	.....	.....	.....	.....	.....	.....	.....
2¼	.75	1¼	1⅜	(sh) 500,000	N.P.	Atlantic Lobos	.....	.....	.....	.....	.....	.....	.....	.....
5	2⅜	4¼	3	$ 10,000,000	$ 10	do pfd	.....	.....	.....	.....	.....	.....	.....	.....
75	65	69	63	1,000,000	100	Borne Scrymser	$4S.A.	Oct. 15, 26	300	65½	66	65	65	— ½
59½	42	48½	45	10,000,000	50	Buckeye Pipe Line	$1Q	Dec. 15, 26	600	48	48	46½	647½	— ½
82½	65	82¾	76½	3,000,000	25	Chesebrough Mfg	75cQ	Dec. 28, 26	200	81½	81½	81½	81½	— 1¼
25⅞	17½	22⅝	20	35,051,920	10	Continental Oil	25cQ	Dec. 15, 26	25,600	20⅞	20⅞	20¼	20¾	— ¾
17	13½	.....	.....	1,500,000	25	Crescent Pipe Line	.....	Sept. 15, 23	.....	.....	.....	.....	.....	.....
137	102	137	106	3,000,000	100	Cumberland Pipe Line	$3Q	Dec. 15, 26	470	133	133	123	123	—10
63¾	43	51¼	47	5,000,000	100	Eureka Pipe Line	$1Q	Feb. 1, 27	150	50	50	49	49	— ¾
32½	9⅛	13½	10¼	2,000,000	100	Galena Signal Oil	.....	June 30, 25	100	11½	11½	11½	11½	— ½
94½	35	59¾	45½	4,000,000	100	do new pfd	.....	June 30, 26	40	50	50	49	49	— 1
97½	40	60⅛	50	2,000,000	100	do old pfd	.....	June 30, 26	110	52½	52½	52	52	0
99⅝	52	62¾	55	72,916,666	25	Humble Oil & Refining	30cQ	Jan. 1, 27	7,800	58¾	58⅜	†55	55⅛	— 3¼
144½	125¼	140½	123¾	20,000,000	100	Illinois Pipe Line	$6S.A.	Dec. 15, 26	1,100	137	137½	136½	136¾	— ¼
39¾	32½	46	37¾	(sh) 6,491,852	N.P.	Imperial of Canada	25cQ	Mar. 1, 27	9,800	44⅛	44⅞	42¾	42⅞	— 1¼
70	54¼	69½	61	$ 5,000,000	$ 50	Indiana Pipe Line	$1Q	Feb. 15, 27	550	66½	67	65	65	— 1
35¼	28¾	34⅞	31¾	(sh) 7,118,138	N.P.	International Petroleum	25c	Nov. 15, 26	14,400	33¼	33¼	32	32¼	— 1
20¾	12½	14⅜	13½	$ 6,362,500	$12½	National Transit Co	25cQ	Dec. 15, 26	3,600	14	* 14⅜	13⅞	14⅛	+ ⅛
51½	27⅛	36	31¼	5,000,000	100	New York Transit	.....	July 15, 26	600	34	34	32¾	33	0
80½	64	80	70	4,000,000	100	Northern Pipe Line	$3S.A.	Jan. 1, 27	450	79½	* 80	79¼	80	+ 1
67¾	55¾	64¼	59⅛	60,000,000	25	Ohio Oil Co	50cQ	Dec. 15, 26	5,200	60½	60⅞	†59⅛	59⅛	— 1⅛
24¾	15	19	16½	10,000,000	25	Penn Mex Fuel	.....	May 21, 25	200	17½	17¾	17½	17¾	— 1
60¾	43	55½	51¼	60,000,000	25	Prairie Oil & Gas	50cQ	Nov. 30, 26	16,000	52½	53	†51¼	51¾	— 1¼
137½	122¼	148	132	81,000,000	100	Prairie Pipe Line	$2Q	Jan. 31, 27	4,250	146	147½	141¼	144	— 2
220	184½	201½	190	4,000,000	100	Solar Refining	$5S.A.	Dec. 20, 26	90	194	194	†190	190	— 5
27	21	27¼	16	5,000,000	50	Southern Pipe Line	.....	Mar. 1, 26	300	17¾	18	17¾	18	+ ¼
50	34½	41½	37¼	20,000,000	25	South Penn Oil	50cQ	Dec. 31, 26	900	38	38	†37¼	37¾	— ¼
57	49	64¾	55½	3,500,000	100	South West Pa. Pipe Lines	$1Q	Dec. 31, 26	200	64	* 64¾	63¼	63¼	+ ¼
70½	60½	74¼	67¼	226,322,708	25	S. O. Indiana	62½cQ	Dec. 15, 26	46,400	70⅞	71⅛	68⅜	68⅝	+ 6⅛
36½	16½	20⅞	17⅜	8,000,000	25	S. O. Kansas	.....	June 16, 24	900	18	18⅛	†17⅝	17¾	— ¼
134¾	108	122¼	118¼	16,929,809	25	S. O. Kentucky	$1Q	Dec. 31, 26	1,400	119⅛	119⅜	118⅜	118¾	— ½
51⅛	42	49½	46¼	4,518,600	25	S. O. Nebraska	62cQ	Dec. 20, 26	600	47⅞	47⅞	46¾	46¾	— 2¼
39	34¼	41	37⅝	.....	25	S. O. New Jersey w.i	.....	.....	1,700	.....	38⅞	38	38	— ⅞
372	288	354	312	14,000,000	100	S. O. Ohio	$2½Q	Jan. 1, 27	190	332	334	†312	318	—16
120½	116½	122	117¼	7,900,000	100	do pfd	$1¾Q	Dec. 1, 26	140	118	118	118	118	0
23	15½	16	14½	861,466	25	Swan Finch Co	.....	Nov. 1, 19	150	16½	17	16½	17	+ 1
109¾	90¼	104½	95⅛	62,199,950	25	Vacuum Oil	50cQ	Dec. 20, 26	7,900	101½	101⅞	99¼	101½	— ¼

New York Curb Bonds

Week Ending Mar. 4

	High	Low	Last	Ch'ge
Beacon Oil 6s '36	102	101½	101½	— ½
Cities Serv. 6s '66	102⅝	100⅛	101⅜	—1⅜
Cities Serv. 5s n	91⅞	91¾	91¾	0
Cities Serv. 7s "D" '66	133½	120	120	—12¾
Galena S O 7s '30	92	90⅜	90¾	—1⅝
General Pet. 6s '28	101¾	101¼	101¾	0
Gulf Oil 5s '47	100⅛	100	100	0
Gulf Oil 5s '37	100¼	100	100⅛	— ⅛
Gulf Oil 5½s '28	100⅝	100⅝	100⅝	0
Indepen. Oil 6½s '31	103⅜	103½	103⅝	— ⅛
Pure Oil 6½s '33	103¾	103⅜	103½	+ ¼
Richfield Oil 6s wi '41	99⅛	99	99	0
S. O. N. Y. 6½s '33	105⅛	104¾	105	— ¼
S. O. N. Y. 4½s '51	95¾	95⅝	95⅝	+ ¼
Sun Oil 5½s '39	100	99¾	100	0
Trans. Cont. Oil 7s '30	99½	99¼	99½	— ⅛
United Oil Prod. 8s '31	70	69¾	70	+2

New York Bonds

Week Ending Mar. 4

	High	Low	Last	Ch'ge
Amer. Rep. Deb. 6s	99¾	99½	99½	0
Assoc. Oil gold 6s	102⅞	102⅝	102⅝	0
Atlantic Refg. deb. 5s	101½	100½	101½	+ ⅝
Barnsdall Corp. 6s	106¾	104¾	105⅛	—1
Barnsdall Corp. 6s wi	92⅞	92	92	— ¾
Cal. Petrol. sf 6½s	103½	103½	103½	0
Cal. Petrol 5½s	101	100⅝	100¾	+ ⅛
Cal. Petrol. 5s	96⅝	96⅛	96⅛	0
Empire Gas & Fuel 7½s	108½	107⅛	107¼	—1
Empire Gas & Fuel 6½s	104	102	102¾	— ¾
Gen. Asphalt 6s	112½	110	111½	+1¾
Gen. Petroleum 5s	101	100¾	100¾	+ ⅛
Humble Oil & Refg. 5½s	102¾	102¼	102¼	— ¼
Mid-Cont. Pet. 6½s	105⅛	105	105	0
Pan-Amer. P & T 7s	105¼	105⅛	105¼	+ ⅛
Pan-Amer. P & T 6s	105	104	104¼	— ¼
Pan-Amer. P & T 6s	99⅝	98	98	—1¼
Pierce Oil deb 8s	100	100	100	— ½
Prod. & Refnrs. 8s	110¾	110¾	110¾	0
Simms Pet. cvt. 6s	103¾	102⅝	102⅝	— ⅜
Sinclair Con. Oil Col. 7s	101⅝	100⅛	100⅛	—1½
Sinclair Con. Oil Con. 6½s	100⅜	99¼	99¾	— ⅝
Sinclair Con. Oil 6s	100⅝	100	100⅛	— ⅜
Sinclair Crude Oil 6s	100⅞	100⅝	100⅝	— ⅛
Sinclair Pipe Line sf 5s	95¼	94½	95	0
Standard Oil of N.Y. 4½s	96	95⅝	95¾	0
Standard Oil N. J. deb. 5s	102	101¾	101⅞	— ⅛
Superior Oil 7s	101	101	101	— ¼
Union Oil of Cal. 1st 5s	101½	101½	101½	— ¾
Union Oil of Cal. 5s-C	99⅛	98½	98¾	— ⅜

NEW YORK, Mar. 5.—Reiter-Foster Oil Co. reports income of $21,665 in January before reserves and taxes. The balance sheet of Jan. 31 shows total assets of $4,500,125 of which $4,098,585 consists of properties. Current assets were $217,963 and current liabilities $176,151.

New York Curb Market

1926 High	1926 Low	1927 High	1927 Low	Par Value	Stocks	Transactions Week Ended Mar. 4 Sales	First	High	Low	Last	Ch'ge
6¾	.45	2 1/16	.92		Amer. Con. Oilfields	37,300	1 1/16	1⅛	† .92	1	— 1/16
14½	4	7½	4¾	$5	Amer. Maracaibo	10,900	5	5¼	† 4¾	4⅞	— ¼
8⅜	5¾	8⅝	7⅛	10	Arkansas Nat. Gas.	2,300	7⅝	7¾	7¼	7½	0
20⅜	14⅛	20½	17½	N.P.	Beacon Oil	1,200	17¾	18	†17½	17½	— ⅜
85¼	60	237⅛	20½	N.P.	British American	400	.....	23¾	23½	23¾	0
28⅜	9¼	28¼	20⅛	25c	Carib Syndicate	13,900	22	22¾	†20⅛	22	— 3
.....	.....	26	20	.....	do ctfs. of deposit	3,600	21½	22¼	†20	22¼	+ ½
51	37½	58¾	40¼	$20	Cities Service	166,600	58⅝	58¾	†40¼	49¾	— 9
92½	82⅜	92¼	87	100	do pfd	10,900	91⅝	91¾	†87	88⅝	— 2½
8⅛	7⅜	8½	7⅜	10	do pref. B	2,700	8½	8½	† 7⅜	7⅞	— ½
25¼	19	29¼	25½	10	do bankers' shares	800	29⅛	29⅛	29	29	— ¼
3½	1¾	3⅛	2⅛	$1	Colombia Syndicate	11,500	2⅛	2⅛	2⅛	2⅛	— ⅛
10⅛	8⅛	9⅜	8⅝	....	Consolidated Royal	400	.....	9¾	9½	9½	.....
16	10	14⅞	13	N.P.	Creole Syndicate	22,400	13½	14	13¼	13⅜	— ⅛
7⅜	1⅛	3	2¼	N.P.	Crown Central	2,500	.....	2⅜	2¼	2¼	— ¼
8½	½	11¾	4¾	....	Darby Petroleum	700	.....	10½	10	10	0
.....	.....	11⅛	8½	....	do trust ctfs	400	.....	10½	10⅛	10⅛	0
4	1¾	2½	1¼	N.P.	Derby Oil & Refining	100	2	2	2	2	0
19	13	12	10	N.P.	do pfd	.....	.....	.....	.....	.....	.....
7½	2½	3¾	2¼	N.P.	Gibson Oil	23,600	2¾	2⅞	2¼	2⅝	— ⅛
2	.63	1⅜	.95	N.P.	Gilliland ctfs	6,300	1⅛	2	1⅛	1⅜	— ⅛
98	82	96½	92¼	$25	Gulf Oil Corp	4,100	94¾	94⅞	93⅜	94¼	— ½
3⅜	1	2¼	1¼	N.P.	Kirby Petroleum	600	1⅝	1¾	1½	1⅝	— ⅛
12¼	5¾	10⅞	8¾	N.P.	Leonard Oil & Dev.	10,100	9⅝	9¾	9¼	9⅜	— ⅛
27	20	27½	24	N.P.	Lion Oil & Refg	2,500	26½	26¾	26⅛	26½	— ⅛
46	31	45¾	37	$25	Lone Star Gas	14,700	44½	* 45¾	42⅞	43⅛	— ½
2¾	2	2⅞	1⅝	....	Magdalena Synd	4,300	2	2	1¾	1¾	— ¼
5½	1⅞	3	2	$10	Mexican-Panuco	2,900	2⅛	2¼	2	2⅛	0
1¾	1¼	1½	1¼	1	Mountain & Gulf	1,300	1½	1½	1⅜	1½	+ ⅛
26	23	26⅞	25	10	Mountain Producers	11,500	25¾	26⅛	25¾	26	+ ½
6¾	5	5⅞	5	5	New Bradford	1,500	5⅜	5⅜	5⅛	5⅛	— ⅛
11¾	2	6	5¼	10	New England Fuel	100	5¼	5¼	† 5¼	5¼	— ¼
17	9⅛	13¾	11¼	1	New Mex. & Ariz	1,900	13	13	12½	13	0
17	8	11	9¼	25	New York Oil	400	.....	10	9¾	9¾	— ¼
12⅛	8¾	12	11¼	....	North Cent. Texas	3,500	12⅛	12¾	12⅛	12½	+ ⅜
44¾	33	.....	.....	25	Ohio Fuel Corp	.....	.....	.....	.....	.....	.....
33	28½	21¼	21¼	....	Okla. Nat. Gas ctfs.	.....	.....	.....	.....	.....	.....
10⅛	5⅞	8¾	5⅜	N.P.	Pandem	5,100	6⅜	7	† 5⅜	6⅜	— ¼
12¼	11¾	12	11⅞	N.P.	Pantapec Oil	3,900	11⅞	12	11⅞	12	0
2¾	.20	.37	.31	N.P.	Peer Oil Corp	1,000	31	31	†31	31	— 4
22¾	12	13½	10⅜	$10	Pennok Oil	400	11	11	†10⅜	10⅜	— ⅜
38	14⅛	24⅜	19	25	Red Bank Oil	300	22	22	21	21	— 1
30¼	12	15½	8⅝	N.P.	Reiter-Foster	6,400	12¼	12¾	† 8⅝	8⅞	— 3⅜
27½	22	27½	24	$25	Richfield Oil	600	24	25⅝	†24	25⅜	+ ⅝
7¼	4½	7	5	N.P.	Ryan Consolidated	800	.....	5½	5¼	5¼	— ⅜
10	7½	8	7¼	$10	Salt Creek Cons	.....	.....	.....	.....	.....	.....
36	26⅞	32	30½	10	Salt Creek Prod	2,500	30¾	31	30½	30⅝	0
4⅜	1⅛	7	3	5	Savoy Oil	100	5½	5½	5½	5½	0
27	7⅝	26½	21	10	Tidal Osage	2,400	25	26	24⅝	25¼	+ ¼
25¾	7⅝	23¾	19½	10	do non-voting	9,900	22⅛	* 23¾	22⅛	23	+ ⅝
27	20⅞	23½	21	N.P.	Tide Water Assoc.	8,000	21¾	21¾	†21	21⅛	— ¾
99½	93¾	95¾	93⅝	100	do pfd	900	94¼	94⅜	94	94¼	0
.....	.....	80	63½	100	Transcont. pfd	1,625	74¼	* 80	74¼	77	+ 3½
8	4⅛	7⅜	6⅜	5	Venezuelan Petro	1,200	6⅝	6½	6⅝	6⅝	+ ⅛
30⅛	23⅞	27	25½	N.P.	Warner-Quinlan	700	26½	* 27	26½	27	+ ⅜
36⅛	22	32⅝	26½	N.P.	Wilcox Oil & Gas	2,900	29	29	†26½	27	— 2
9½	4⅜	8	6½	$1	Woodley Petroleum	2,900	6¾	7⅝	† 6½	7¼	+ ⅜

*New High †New Low xEx-Dividend

Atlantic to Meet West's Competition in East

CLEVELAND, March 7.—No trace of todays 10-cent reduction in price of Pennsylvania crude oil could be found in the western Pennsylvania refinery market today but low gasoline prices in the Mid-Continent caused worry among some refiners and declarations by others that they would ignore the western situation believing it was only temporary and would be cleared as soon as the spot market became more active.

The greatest shock to the Pennsylvania Independents came when the information spread that Atlantic Refining Co. would meet all western competition. Atlantic has refineries at Pittsburgh and Franklin, Pa., but as in the past most of the spot market gasoline offerings have been out of Franklin. Meeting present western competition means a net back of about 9¾ to 10¼ cents a gallon for U. S. Motor gasoline at Franklin. For this grade of gasoline the Independents who were still quoting today, were asking from 11 to 11½ cents with one refiner quoting 10⅞ cents, f.o.b. refinery.

Refiners who refuse to meet this competition are content to hold their gasoline above the volume that goes to their regular customers or through their own retail outlets. They believe that better weather in a few weeks will cause the market to rally and the panicky conditions that have followed the flush Seminole production and general crude price reductions east of California, will be overcome.

Mid-Continent gasoline has driven Atlantic seaboard gasoline out of the hinterland. One broker who keeps in close touch with the Atlantic seaboard situation said he had not heard of a carload of seaboard gasoline coming into western Pennsylvania or western New York in a week. He said he had heard of Mid-Continent gasoline being shipped as far east as the Boston district and he himself had sold as far east as the Hudson river.

Several motor oil blenders were reported buying for early summer requirements and brights stocks were a little firmer, it was reported in some quarters. Neutrals continue fairly scarce although some neutrals are available for the open market. The 150 viscosity No. 3 color grade seems more plentiful on the open market than the grades of higher viscosity. This grade is moving regularly at 27 to 28 cents but one sale at 26½ cents Saturday was reported.

Refiners today are holding kerosene to prices that existed a week ago although the market sagged toward the end of last week. Sales at 7½ to 7¾ cents for 45 water white were reported today. Fuel is firm at unchanged prices.

Steam refined stocks are quiet and filtered and long residuum stocks are steady. Petrolatums also are steady. Wax is a little cheaper. Refiners are asking slightly more, New York base, than the present going market in New York.

THE OIL INDUSTRY EXCHANGE

Positions Wanted

SALES MANAGER—Twenty years experience marketing full line of petroleum products in the Eastern states; both consuming and jobbing trades. Box 795.

WHO WANTS A GOOD OIL MAN?

Young man with over twelve years experience as Export Manager, Sales Manager, Buyer and Tank Car Marketer of all petroleum products would like to make good connection. Best references. Will go anywhere.

Box 802

Situations Open

PETROLEUM ENGINEER WANTED with at least five years practical experience. A man with gas lift experience preferred. State experience, references and salary wanted in first letter. Address Drawer L, Bartlesville, Oklahoma.

OIL AND PAINT SALESMAN WANTED. Lubricants—Paints—Roof Cement. Best quality—Competitive prices. Exclusive territory. Liberal co-operation. Become District Supervisor later. Wonderful chance for go-getter to earn $65 to $90 weekly to start. Give details. P. O. Box 1735, Pittsburgh, Pa.

ENGINEERING DRAFTSMAN

We require the services of a first class draftsman familiar with oil refinery work, including piping, tube stills and general refinery construction. Reply in detail giving age, experience, salary desired, etc.

Address Box 806

SALESMEN WANTED: Calling on filling stations to increase their earnings $25.00 per day with our easy plan. Write, Sales Mgr. 4327 Ravenswood, Chicago, Ill.

CAPABLE SALES EXECUTIVE WANTED

With ability to handle salesmen soliciting wholesale and retail accounts for refining company. Applicant will be judged by results he has shown in the past.

Box 803

Miscellaneous

WHAT IT COSTS

For "Position Wanted" advertisements without border—5 cents per word. Minimum cost $1.00. All other classified advertising—10 cents per word. Minimum cost $3.00.

Advertisements set in special type or with border—$4.00 per column inch.
Copy must reach us not later than Friday preceding date of issue.
All advertisements carried on this page are payable in advance.

Business Opportunities

STATE AGENTS WANTED for Benzol Blend, marketed by W. F. Stack & Co., Box 1749, Birmingham, Ala.

DISTRIBUTORS WANTED — Have product for treating gasoline in either storage or truck deliveries. Many companies now using and selling under their own brands. Make your gasoline a real anti-knock suitable for high compression type motors. Get more money for your product. This product has been on market for four years. Have a few state agencies still open. Box 793.

Patent Attorneys

INVENTORS who derive largest profits know and heed certain simple but vital facts before applying for patents. Our book Patent-Sense gives those facts; sent free. Lacey & Lacey, 679 F St., Washington, D. C. Established 1869.

Wanted—To Buy

SECOND HAND 55-GALLON DRUMS WANTED. Bolted covers 9" or larger. Address Sherwin-Williams Co., Kensington, Ill.

For Sale

TRUCK TANK FOR SALE

800-gallon semi-elliptical 4-compartment Heil tank good as new. Will sacrifice at real bargain.

Box 804

TRIBAL OSAGE OIL LEASES AT PUBLIC AUCTION, MARCH 28, 1927, BY UNITED STATES GOVERNMENT. March 28, 1927, at Pawhuska, Oklahoma, about 70,000 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25% payable on day of sale, balance in three annual instalments, with acceptable security. Within advertised area there are about 9.826 oil wells producing from one barrel to 2,000 barrels each, the total daily production for December 1926, being about 70.000 barrels; also, there are about 75 wells drilling. All lands are now leased separately for gas. Blue print maps of area advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs or other information.

FIVE SHARPLES NO. 6 SUPER CENTRIFUGES FOR SALE

Used one month, 3 Motor Driven, 2 Steam Driven, for separating of oil emulsions. $300 and $400 cost new $1350.

ACME OIL CORPORATION
189 No. Clark St.
Chicago, Ill.

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ADVERTISERS INDEX

National Petroleum News

Adamson Mfg. Co.
Alcorn Combustion Co. 71
Allison Coupon Co.
Aluminum Company of America
American Can Co.
American Oil Pump & Tank Co. 93
American Oil Works
American Radiator Co. 58
American Schaeffer & Budenberg Corp. 53
American Steel Package Co. 90
American Telephone and Telegraph Co.
Associated Business Papers, Inc.
Associated Supply Co. 70
Association of Natural Gasoline Mfgrs.
Autocar Co. 98
Automobile Rotary Lift Co.

Baltimore Hotel.
Barnickel & Co., Wm S. 70
Barnsdall Refineries, Inc.
Battenfeld Grease & Oil Co.
Bellaire Glass Co.
Benjamin Electric Mfg. Co.
Bennett Pumps Corp.
Bessemer Gas Engine Co. 42
Bethlehem Steel Co. 69
Biggs Boiler Works Co. 92
Birmingham Machine & Foundry Co.
Blackmer Pump Co. 11
Blaw-Knox Co.
Boe Mfg. Co.
Bowser & Co., Inc., S. F.
Bradford Oil Refining Co.
Braun & Co., C. F.
Brookins Mfg. Co.
Brown Sheet Iron & Steel Co. 100
Buckeye Boiler Co.
Buckeye Iron & Brass Works.
Budd Wheel Co. 13
Buffalo Meter Co. 90
Burrell Co., Geo. A.
Butler Mfg. Co.

Cameron Refg. Co.
Campbell, J. A.
Canfield Oil Co., Cleveland.
Celite Products Co. 79
Central Commercial Co. 91
Champion Pneumatic Mach. Co.
Champion Tank & Mfg. Co.
Champlin Refining Co.
Chestnut & Smith Corp.
Chicago Nipple Mfg. Co.
Chicago Tubing & Braiding Co.
Chevrolet Motor Co.
Chipman Chemical Engineering Co., Inc.
Cincinnati Advertising Products Co.
Cincinnati Ball Crank Co.
Clark Co., Fred G.
Classified Advertising Section. 111
Clear Vision Pump Co.
Cleveland Steel Barrel Co.
Columbian Steel Tank Co. 61
Continental Ref. Co.
Continental Supply Co. 81
Correct Measure Co.
Crown Central Petroleum Corp.
Curtis Pneumatic Machinery Co.
Cushing Refg. & Gasoline Co.

Davis Welding & Mfg. Co.
Dawes Electric Sign & Mfg. Co.
Dayton Air Compressor.
Dayton Pump & Mfg. Co.
Dearborn Chemical Co.
Deepwater Oil Refineries.
Des Moines Foundry & Machine Co.
Draper Mfg. Co. Inside Back Cover
Dunning Compressor Co.

Eaton, J. E.
Edwards Mfg. Co.
Edward Valve & Mfg. Co.
Elk Refining Co.
Emerson-Scheuring Tank Co.
Empire Oil Works, Inc.
Empire Refineries, Inc.
Enameled Steel Sign Co.
Erie Meter Systems, Inc.
Ethyl Gasoline Corp.

Fairbanks, Morse Co.
Farrell Mfg. Co.
Fiske Bros. Refg. Co.
Flexlume Corp.
Foamite-Childs Corp.
Foxboro Co., Inc. 53
Fogarty Mfg. Co., The.
Freedom Oil Works.
Frontier Mfg. Co.
Fryer Globe & Sign Co., Inc.

Gasoline Register Co.
General American Tank Car Corp.
Gilbert & Barker Mfg. Co. 4
Globe Mfg. Co.
Globe Oil & Refg. Co.
Globe Superior Corp.
Gomory, W. L.
Graham Brothers. 6
Graver Corp. 1
Gray Processes Corp.
Greenspon's Sons Iron & Steel Co., Jos.
Groetken Pump Co.
Guarantee Liquid Measure Co. 8-9
Gulf Ref. Co. 92

Handy Oiler Co.
Hartol Products Corp.
Haynes Stellite Co.
Heil Co., The.
Heine Boiler Co.
Hiergesell Brothers.
Highland Body Mfg. Co.
Hope Engineering & Supply Co. 54
Hughes Tool Co.
Humble Oil & Refining Co.
Huntley & Huntley.
Hurt Engineering Corp., G. F. 100

Illinois Glass Co.
Imperial Oil Marketing Co.
Independent Oil & Gas Co. 50
International Harvester Co.
Irving-Iron Works Co. 68
Island Export Co.
International Derrick & Equip. Co.

Jackson Pump Co., Byron.
Jenkins Bros. 71
Johns-Manville Co., H. W.
Johnson Fare Box Co.
Julian Pump Co.

Kanotex Ref. Co.
Keen & Woolf Oil Co.
Kellogg Co., M. W.
Kellogg Mfg. Co.
Kelly-Springfield Tire Co. 52
Kelly-Springfield Truck & Bus Corp.
Kewanee Safe Co.
Klean-Rite Auto Laundry Co.

Lancaster Iron Works, Inc.
Larkin-Thuro Corp.
Leader Iron Works.
Lewis-Shepard Co.
Lientz & Co., B. P.
Linde Air Products Co.
Lubricating Appliance Mfg. Co.
Luce Trunk Co. 93
Lummus Co., The Walter E.

Marland Refg. Co.
Marnall Steel Co.
Mars Co.
Martin & Co., F. E.
Marvel Equipment Co.
Master Mfg. Co.
McDonald Mfg. Co., A. Y. 12
McKee & Co., Arthur G. 37
Merco Nordstrom Valve Co. 15
Merit Oil Equipment Co.
Metal Hose & Tubing Co. 16
Metal Shelter Co.
Metric Metal Works. 86
Meyercord Co.
Miller & Co., Inc., Max B. 41
Miller Sons Co., A. D.
Milwaukee Tank Works.
Moore & Co., Lee C.
Morrison Bros.

National Carbon Co., Inc. 65
National Checking Co.
National Lead Co.
National Oil Products Co.
National Petroleum News. 14-84-94
National Recording Pump Co.
National Refining Co.
National Transit Pump & Machine Co. 76
Neil & Co., Wm.
Neil House, The.
New York Lubricating Oil Co.
North American Car Corp.

Oakite Products, Inc. 95
Ohmer Fare Register Co.
Oil Conservation Engineering Co. 56
Oil Products Appliance Co.
Oil Well Supply Co. 89
Omar Refining Co.
Oxweld Acetylene Co.

Pease Co., C. F.
Pennsylvania Flexible Metallic Tubing Co.
Pennsylvania Pump Co., Inc.
Pennsylvania Refg. Co.
Perfection Mfg. Co.
Petroleum Iron Works Co.
Petroleum Oils Corp.
Pforzheimer & Co., Carl H.
Phillips Petroleum Co.
Pittsburgh-Des Moines Steel Co.
Pittsburgh Machine Tool Co.
Platt Co., W. C. 10
Power Specialty Co.
Pressed Steel Tank Co.
Prest-O-Lite Co. 47
Producers & Refiners Corp.
Professional Card Section.
Pure Oil Co.
Pyrene Mfg. Co.

Quaker State Oil Refg. Co.
Quincy Compressor Co.

Ranney Oil Mining Co.
Rand McNally & Co.
Reading Iron Co.
Reading Steel Castings Co., Inc.
Rhodes Co., Jay B.
Robertson Steel & Iron Co., W. F.
Roper Corp., Geo. D.
Roxana Petroleum Corp.

St. Louis Can Co. 2
St. Louis Pump & Equip. Co.
St. Louis Surfacer & Paint Co.
Safety Lift Co.
Schrayer & Co., Robert M.
Selden Truck Corp.
Service Station Equip. Co.
Shaffer Tool Works.
Sharpe Sales Co.
Sharpsville Boiler Works Co.
Shaw, S. F.
Shepard Corp., Arthur B.
Shotwell Pump & Tank Co.
Sinclair Refining Co. 96
Sistersville Tank & Boiler Works.
Skelly Oil Co.
Smith Corp., A. O.
Smith Separator Co. 49
Southwestern Engineering Corp. 82
Sowers Mfg. Co.
Spencer Petroleum Co.
Standard Boiler & Plate Iron.
Steel Drum Accessories Corp.
Steiner Oil Co.
Streett & Co., J. D.
Suender, W. Frederick.
Sun Oil Company. 8

Tagliabue Mfg. Co., C. J.
Texas Company, The.
Texas Pacific Coal & Oil Co.
Tidal Refining Co.
Tokheim Oil Tank & Pump Co. 85
Transcontinental Oil Co. 7
Truscon Steel Co.

Union Metal Mfg. Co.
United Filters Corp. 79
U. S. Air Compressor Co. Inside Front Cover
United States Can Co., The.
United States Cast Iron Pipe & Foundry Co. 45
Universal Oil Products Co. 66-67

Van Leer Spout Co., Inc.
Viking Pump Co.
Vilter Mfg. Co.
Vogt Machine Co., Henry. 72

Wackman Welded Ware Co.
Wadhams Oil Co.
Walworth Co.
Waverly Oil Works. 5
Wayne Co. Outside Back Cover
Westcott & Greis, Inc. 86
Wheaton Brass Works, A. W. 81
Wheeling Steel Corp.
White Co. 83
White Eagle Oil & Refg. Co.
Widdell Engineering Co., Inc. 87
Williams Sealing Corp.
Williamson Advertising Service, W. F.
Wilsey Tuthill Pump.
Wilson & Bennett Mfg. Co. 88
Wilson Welder & Metals Co., Inc. 75

Youngstown Boiler & Tank Co.
Youngstown Welding Co., The.